





INDEX OF PATENTS  
RELATING TO  
ELECTRICITY,

EMBRACING PATENTS ISSUED BY  
THE UNITED STATES PATENT OFFICE

FROM JULY 1, 1891, TO JUNE 30, 1892.

---

APPENDIX No. XI.

---

COMPILED UNDER THE DIRECTION OF THE COMMISSIONER OF PATENTS.

---

WASHINGTON:  
GOVERNMENT PRINTING OFFICE.  
1893.

282520



INDEX OF PATENTS  
RELATING TO  
ELECTRICITY,

EMBRACING PATENTS ISSUED BY  
THE UNITED STATES PATENT OFFICE

FROM JULY 1, 1891, TO JUNE 30, 1892.

---

APPENDIX No. XI.

---

COMPILED UNDER THE DIRECTION OF THE COMMISSIONER OF PATENTS.

---

WASHINGTON:  
GOVERNMENT PRINTING OFFICE.  
1893.



---

## APPENDIX No. XI.

---

### PART I.

---

CONSISTING OF A

### SUB-CLASS INDEX OF ALL PATENTS

RELATING TO

## ELECTRICITY

Issued from July 1, 1891, to June 30, 1892, inclusive, giving names of Inventors,  
and dates and numbers of Patents in each sub-class in  
numerical and chronological order.

---





# CLASSIFIED INDEX

OF

## PATENTS RELATING TO ELECTRICITY

FROM JULY 1, 1891, TO JUNE 30, 1892.

### 171. GENERATION.—6. BATTERIES—GALVANIC.

No.	NAME.	DATE.	No.	NAME.	DATE.
11,207	Wollensak, J. T. and Gill, W. E. (Reis.)	Dec. 1, 1891	466,177	Miller, S.-----	Dec. 29, 1891
11,238	Roberts, I. L.----- (Reis.)	Apr. 26, 1892	466,664	Delany, P. B.-----	Jan. 5, 1892
455,693	Sample, H. C.-----	July 7, 1891	466,798	Nowotny, J. S.-----	Jan. 12, 1892
455,815	Farnham, I. H.-----	July 14, 1891	466,820	Beattie, J., jr.-----	Jan. 12, 1892
455,855	Eldredge, E. C.-----	July 14, 1891	467,239	Schoenmehl, C. B.-----	Jan. 13, 1892
455,986	Hayes, H. V. and Hibbard, A. S.	July 14, 1891	467,240	Schoenmehl, C. B.-----	Jan. 19, 1892
457,116	Hard, J. R.-----	Aug. 4, 1891	467,372	Gendron, F.-----	Jan. 19, 1892
457,430	Pondroux, F.-----	Aug. 11, 1891	468,887	Miller, S.-----	Feb. 16, 1892
459,447	Robertson, J. H.-----	Sept. 15, 1891	469,428	Waite, C. N.-----	Feb. 23, 1892
460,122	Edison, T. A.-----	Sept. 29, 1891	470,073	Ortell, E.-----	Mar. 1, 1892
460,277	Gardiner, J. B.-----	Sept. 29, 1891	470,123	Harris, H. I.-----	Mar. 1, 1892
461,023	Lamb, D. M.-----	Oct. 13, 1891	470,260	Riatti, V.-----	Mar. 8, 1892
461,024	Lamb, D. M.-----	Oct. 13, 1891	470,552	Davis, J. H.-----	Mar. 8, 1892
461,025	Lamb, D. M.-----	Oct. 13, 1891	470,792	Root, F. H.-----	Mar. 15, 1892
461,026	Lamb, D. M.-----	Oct. 13, 1891	471,945	Burnley, W.-----	Mar. 29, 1892
461,027	Lamb, D. M.-----	Oct. 13, 1891	473,386	Ernley, J. E.-----	Apr. 19, 1892
461,262	Hieronymus, P.-----	Oct. 13, 1891	473,463	Howard, J. H.-----	Apr. 26, 1892
461,965	Souther, C. N.-----	Oct. 27, 1891	474,454	Lutcke, C.-----	May 10, 1892
463,247	Crowdus, W. A.-----	Nov. 17, 1891	474,912	Keating, A. S.-----	May 17, 1892
463,248	Crowdus, W. A.-----	Nov. 17, 1891	475,759	Ericsson, O.-----	May 31, 1892
464,665	Roberts, I. L.-----	Dec. 8, 1891	475,797	Reckenzaun, A.-----	May 31, 1892
465,206	Rogers, L. H.-----	Dec. 15, 1891	476,296	Osgood, R. P.-----	June 7, 1892
			477,645	Childs, W. A.-----	June 28, 1892

### 171. GENERATION.—72. BATTERIES—SECONDARY.

455,968	MacLaughlan, J. R.-----	July 14, 1891	464,676	Morrison, W.-----	Dec. 8, 1891
456,558	Flick, O. C.-----	July 28, 1891	467,573	Entz, J. B. and Phillips, W. A.	Jan. 26, 1892
456,843	Pieper, H.-----	July 28, 1891	469,129	Elieson, C. P.-----	Feb. 16, 1892
457,555	Paget, L.-----	Aug. 11, 1891	470,701	Parker, G. F. and Crapo, C. E.	Mar. 15, 1892
457,880	Madden, A. F.-----	Aug. 18, 1891	471,538	Donaldson, W. W. and Macrae, R.	Mar. 29, 1892
458,424	Lugo, O.-----	Aug. 25, 1891			
458,425	Lugo, O.-----	Aug. 25, 1891	471,590	Winkler, C. F.-----	Mar. 29, 1892
459,491	Currie, S. C. C.-----	Sept. 15, 1891	471,591	Winkler, C. F.-----	Mar. 29, 1892
459,535	Silvey, W. L.-----	Sept. 15, 1891	471,592	Winkler, C. F.-----	Mar. 29, 1892
460,235	McDonald, J. B.-----	Sept. 29, 1891	473,146	Dey, H. E.-----	Apr. 19, 1892
460,599	Rosenbaum, W. A.-----	Oct. 6, 1891	473,147	Dey, H. E.-----	Apr. 19, 1892
461,823	Entz, J. B. and Phillips, W. A.	Oct. 27, 1891	475,335	McLaughlin, J. F.-----	May 24, 1892
461,858	Waddell, M. and Entz, J. B.-----	Oct. 27, 1891	476,483	Paramore, E. C.-----	June 7, 1892
462,449	Palmer, J. H.-----	Nov. 3, 1891	477,182	Lloyd, H. H.-----	June 14, 1892
462,693	Edgerton, N. H.-----	Nov. 10, 1891	477,914	Silvey, W. L.-----	June 28, 1892
463,879	Waldron, C. F.-----	Nov. 24, 1891	478,018	Osburn, H. G.-----	June 28, 1892

### 171. GENERATION.—74. BATTERIES—SECONDARY—APPLICATIONS.

466,138	Morris, H. G. and Salom, P. G.-----	Dec. 29, 1891	467,545	Mailloux, C. O.-----	Jan. 26, 1892
467,543	Mailloux, C. O.-----	Jan. 26, 1892	467,546	Mailloux, C. O.-----	Jan. 26, 1892
467,544	Mailloux, C. O.-----	Jan. 26, 1892	467,547	Mailloux, C. O.-----	Jan. 26, 1892

### 171. GENERATION.—73. BATTERIES—THERMAL.

461,437	Iden, C. W.-----	Oct. 20, 1891	472,261	Gülcher, R. J.-----	Apr. 5, 1892
472,937	Dickerson, E. N.-----	Apr. 5, 1892			

## 171. GENERATION.—23. FRICTION GENERATORS.

No.	NAME.	DATE.	No.	NAME.	DATE.
459,678	Davis, J. W. and Farrington, J. B.	Sept. 15, 1891	464,156	Hirber, V	Dec. 1, 1891

## 171. GENERATION.—95. GALVANOMETERS.

460,650	McIntosh, L. D	Oct. 6, 1891	470,341	Weston, E	Mar. 8, 1892
464,025	Kammeyer, C. E	Dec. 1, 1891	472,026	Bergmann, S. and Scott, G. A	Apr. 5, 1892
465,442	Weston, E	Dec. 15, 1891	473,538	Weston, E	Apr. 26, 1892
466,087	Weston, E	Dec. 29, 1891	473,539	Weston, E	Apr. 26, 1892
466,787	Holtzer, C. W. and Cabot, G. E.	Jan. 12, 1892	477,223	Pilkington, H. M. and White, R. S.	June 21, 1892
466,953	Brush, C. F	Jan. 12, 1892			
468,020	Wood, J. J	Feb. 2, 1892	11,250	Weston, E	(Reis.) June 28, 1892
470,340	Weston, E	Mar. 8, 1892			

## 171. GENERATION.—122. INDUCTION COILS.

456,746	Voelker, H. A	July 28, 1891	474,828	Hathaway, P	May 17, 1892
458,625	Hudman, W. J	Sept. 1, 1891	476,816	Pfannkuche, G. and A	June 14, 1892

## 171. GENERATION.—123. INDUCTORIUMS—TRANSFORMERS—ROTARY.

459,423	Thomson, E	Sept. 15, 1891	477,879	Wilcox, N. T	June 28, 1892
---------	------------	----------------	---------	--------------	---------------

## 171. GENERATION.—124. INDUCTORIUMS—TRANSFORMERS—STATIONARY.

457,407	Spencer, I	Aug. 11, 1891	464,677	Poleschko, A	Dec. 8, 1891
461,135	Stanley, W., jr	Oct. 13, 1891	466,937	Pfannkuche, G	Jan. 12, 1892
463,694	Vail, W. W	Nov. 24, 1891			

## 171. GENERATION.—33. MAGNETO-ELECTRIC.

455,488	McGahan, F. L	July 7, 1891	462,882	Short, S. H	Nov. 10, 1891
455,517	Riker, A. L	July 7, 1891	462,883	Short, S. H	Nov. 10, 1891
455,518	Riker, A. L	July 7, 1891	462,973	Thomson, E. and Walkefield, W. O.	Nov. 10, 1891
455,726	Brown, W. F	July 7, 1891			
455,790	Entz, J. B.	July 14, 1891	463,174	Southland, B. D	Nov. 17, 1891
455,856	Farrington, C. H	July 14, 1891	463,242	Burt, M. C	Nov. 17, 1891
455,887	Rice, E. W., jr	July 14, 1891	463,635	Lyons, J. E	Nov. 24, 1891
455,898	Curtis, C. G	July 14, 1891	463,671	Thomson, E	Nov. 24, 1891
455,971	McGahan, F. L	July 14, 1891	463,704	Parcelle, A. L	Nov. 24, 1891
456,925	Bassett, N. C	July 28, 1891	463,748	Morse, S	Nov. 24, 1891
457,065	Wessel, F. A	Aug. 4, 1891	464,026	Kammeyer, C. E	Dec. 1, 1891
457,226	Short, S. H	Aug. 4, 1891	464,027	Kammeyer, C. E	Dec. 1, 1891
457,327	Paget, L	Aug. 4, 1891	464,216	Day, St. J. V	Dec. 1, 1891
457,358	Maillox, C. O.	Aug. 11, 1891	464,299	Florian, H. A	Dec. 1, 1891
457,657	Mitchell, W	Aug. 11, 1891	464,547	Arnold, C. R	Dec. 8, 1891
457,754	Waring, E. M.	Aug. 11, 1891	465,104	Wiemann, W. P	Dec. 15, 1891
458,236	McCarthy, L. C	Aug. 25, 1891	465,233	Billberg, C. O. C	Dec. 15, 1891
458,856	McLaughlin, J. F	Sept. 1, 1891	465,234	Billberg, C. O. C	Dec. 15, 1891
459,366	Lundell, R	Sept. 8, 1891	465,808	Thury, R	Dec. 22, 1891
459,367	Lundell, R	Sept. 8, 1891	465,855	Hicks, T. H	Dec. 29, 1891
459,368	Lundell, R	Sept. 8, 1891	465,970	Edison, T. A	Dec. 29, 1891
459,422	Thomson, E	Sept. 15, 1891	465,973	Edison, T. A	Dec. 29, 1891
459,508	Hodnit, J	Sept. 15, 1891	465,994	Hicks, T. H	Dec. 29, 1891
459,610	Desroziers, E	Sept. 15, 1891	466,448	Sprague, F. J	Jan. 5, 1892
459,739	Blades, H. H	Sept. 22, 1891	466,972	Bartholomew, I. W.	Jan. 12, 1892
459,820	Short, S. H	Sept. 22, 1891	467,215	White, H. P	Jan. 19, 1892
459,923	Beattie, J., jr	Sept. 22, 1891	467,318	Thomson, E	Jan. 19, 1892
461,140	Kennedy, R	Oct. 13, 1891	467,542	Maillox, C. O	Jan. 26, 1892
461,240	Gilliland, E. T.	Oct. 13, 1891	468,121	Thomson, E	Feb. 2, 1892
461,296	Van Depoele, C. J	Oct. 13, 1891	468,416	Dorman, G. E	Feb. 9, 1892
461,552	Sprague, F. J	Oct. 20, 1891	468,950	Edison, T. A	Feb. 16, 1892
461,795	Lundell, R	Oct. 20, 1891	469,080	Deprez, M.	Feb. 16, 1892
461,862	Young, C. G	Oct. 27, 1891	469,193	Byllesby, H. M	Feb. 16, 1892
461,979	Mayer, M	Oct. 27, 1891	469,281	Sohlman, J	Feb. 23, 1892
462,466	Blackwell, F. O	Nov. 3, 1891	469,725	Sperry, E. A	Mar. 1, 1892
462,880	Short, S. H	Nov. 10, 1891	469,806	Jenney, C. D	Mar. 1, 1892
462,881	Short, S. H	Nov. 10, 1891	469,862	Lundell, R	Mar. 1, 1892

## 171. GENERATION.—33. MAGNETO-ELECTRIC—Continued.

No.	NAME.	DATE.	No.	NAME.	DATE.
469,917	Eickemeyer, R.-----	Mar. 1, 1892	473,366	Short, S. H.-----	Apr. 19, 1892
470,057	Kintzing, R. C.-----	Mar. 1, 1892	473,367	Short, S. H.-----	Apr. 19, 1892
470,194	Hosford, H. H.-----	Mar. 8, 1892	473,547	Decker, W.-----	Apr. 26, 1892
470,217	Stephens, G.-----	Mar. 8, 1892	473,567	Curtis, C. G.-----	Apr. 26, 1892
470,749	Dorman, G. E.-----	Mar. 15, 1892	473,568	Curtis, C. G.-----	Apr. 26, 1892
470,926	Edison, T. A.-----	Mar. 15, 1892	473,618	Eickemeyer, R.-----	Apr. 26, 1892
470,928	Edison, T. A.-----	Mar. 15, 1892	473,619	Eickemeyer, R.-----	Apr. 26, 1892
470,930	Edison, T. A.-----	Mar. 15, 1892	474,388	Jenney, C. D.-----	May 10, 1892
471,691	Atkinson, C. W. and L. B.-----	Mar. 29, 1892	474,600	Hirsh, R. and Meininger, H.-----	May 10, 1892
471,693	Golden, W. T. and Atkinson, L. B.-----	Mar. 29, 1892	474,624	Andrews, J. D. F.-----	May 10, 1892
471,792	Hirsh, R.-----	Mar. 29, 1892	474,848	Morgan, E. C.-----	May 17, 1892
471,819	Hussey, C. A.-----	Mar. 29, 1892	475,159	Short, S. H.-----	May 17, 1892
472,435	Coffman, J. R.-----	Apr. 5, 1892	475,668	Coffin, C. L.-----	May 24, 1892
472,628	Pyke, L. S. M. and Barnett, H. T.-----	Apr. 12, 1892	476,151	Kaeddling, W.-----	May 31, 1892
472,943	Donnan, G. E.-----	Apr. 12, 1892	476,331	Thomson, E.-----	June 7, 1892
473,077	Pepper, D., jr.-----	Apr. 19, 1892	476,368	Daggett, F. B.-----	June 7, 1892
473,078	Pepper, D., jr.-----	Apr. 19, 1892	476,733	Clark, M. M.-----	June 7, 1892
473,195	Meyer, G.-----	Apr. 19, 1892	476,818	Pike, L. S. M. and Harris, E. S.-----	June 14, 1892
473,363	Short, S. H.-----	Apr. 19, 1892	476,819	Pike, L. S. M. and Harris, E. S.-----	June 14, 1892
473,364	Short, S. H.-----	Apr. 19, 1892	477,175	Gaylord, C. H.-----	June 14, 1892
			477,729	Wood, J. J.-----	June 28, 1892

## 171. GENERATION.—118. MAGNETO-ELECTRIC—COUPLINGS.

458,702	Henderson, J. C. and Sargent, F.-----	Sept. 1, 1891	463,121	Garland, F. M.-----	Nov. 10, 1891
460,245	Arnold, C. R.-----	Sept. 29, 1891			

## 171. GENERATION.—76. MAGNETO-ELECTRIC—HAND MACHINES.

463,451	Hunt, J.-----				Feb. 9, 1892
---------	---------------	--	--	--	--------------

## 171. GENERATION.—34. METERS.

455,524	Wood, J. J.-----	July 7, 1891	463,711	Reckenzaun, A.-----	Nov. 24, 1891
455,575	Olán, J. W. T.-----	July 7, 1891	464,540	Wilder, W. D. and Cobb, W., jr.-----	Dec. 8, 1891
456,172	Thomson, E.-----	July 21, 1891	464,683	Waterhouse, A. G.-----	Dec. 8, 1891
457,453	Meylan, E. and Reckucewiski, W. C.-----	Aug. 11, 1891	466,686	Huguet, C. K.-----	Jan. 5, 1892
458,755	Koechlin, M.-----	Sept. 1, 1891	467,669	Cutler, H. H.-----	Jan. 26, 1892
461,229	Baldwin, G. R.-----	Oct. 13, 1891	469,800	Wood, J. J.-----	Mar. 1, 1892
461,575	Herrick, A. B.-----	Oct. 20, 1891	470,441	Olán, J. W. T.-----	Mar. 8, 1892
462,504	Olán, J. W. T.-----	Nov. 3, 1891	472,265	Kelly, J. F.-----	Apr. 5, 1892
463,558	Thomson, W.-----	Nov. 17, 1891	475,411	McKenna, A. S.-----	May 24, 1892
			476,990	Edison, T. A.-----	June 14, 1892

## 171. GENERATION.—125. PYRO-MAGNETO ELECTRIC DEVICES.

476,983	Edison, T. A.-----				June 14, 1892
---------	--------------------	--	--	--	---------------

## 171. GENERATION.—40. REGULATORS.

456,593	Popp, V.-----	July 28, 1891	467,773	Rae, F. B.-----	Jan. 26, 1892
456,612	Bentley, E. M.-----	July 28, 1891	468,260	Pfannkuche, G.-----	Feb. 2, 1892
457,330	Adams, T. E.-----	Aug. 4, 1891	468,686	O'Brian, J. T.-----	Feb. 9, 1892
458,617	Clark, E. P.-----	Sept. 1, 1891	468,690	Pool, J. G.-----	Feb. 9, 1892
458,618	Clark, E. P.-----	Sept. 1, 1891	469,257	Leber, L. H.-----	Feb. 23, 1892
458,646	Thomson, E.-----	Sept. 1, 1891	470,521	Van Depoele, C. J.-----	Mar. 8, 1892
458,956	Short, S. H.-----	Sept. 1, 1891	470,784	Elkins, W. H.-----	Mar. 15, 1892
459,810	Conly, M. S.-----	Sept. 22, 1891	470,785	Elkins, W. H.-----	Mar. 15, 1892
459,811	Conly, M. S.-----	Sept. 22, 1891	472,708	Hunter, R. M.-----	Apr. 12, 1892
460,059	McElroy, J. F.-----	Sept. 22, 1891	474,008	Gibboney, J. W.-----	May 3, 1892
460,372	Elkins, W. H.-----	Sept. 29, 1891	474,165	Elkins, W. H.-----	May 3, 1892
462,020	Silvey, W. L.-----	Oct. 27, 1891	474,166	Elkins, W. H.-----	May 3, 1892
463,693	Storey, I. E.-----	Nov. 24, 1891	474,447	Gibboney, J. W.-----	May 10, 1892
464,136	Holtzer, C. W. and Cahot, G. E.-----	Dec. 1, 1891	474,953	Ellis, A. L.-----	May 17, 1892
466,028	Baxter, W., jr.-----	Dec. 29, 1891	476,311	Replayle, M. A.-----	June 7, 1892
466,760	Thury, R.-----	Jan. 5, 1892	476,426	Sperry, E. A.-----	June 7, 1892
467,230	Hutchinson, C. T.-----	Jan. 19, 1892	476,830	Shallenberger, O. B.-----	June 14, 1892
467,358	Rice, E. W., jr.-----	Jan. 19, 1892	477,637	Bradford, J. M.-----	June 28, 1892



## CLASSIFIED INDEX—ELECTRICITY.

## 171. GENERATION.—119. REGULATORS—ALTERNATING.

No.	NAME.	DATE.	No.	NAME.	DATE.
461,526	Thomson, E -----	Oct. 20, 1891	465,078	Thomson, E -----	Dec. 15, 1891

## 171. GENERATION.—97. SYSTEMS OF DISTRIBUTION.

456,888	Feilbogen, M -----	July 28, 1891	465,854	Hicks, T. H -----	Dec. 29, 1891
456,889	Feilbogen, M -----	July 28, 1891	469,809	Stanley, W., jr -----	Mar. 1, 1892
458,652	Bottomo, T. D -----	Sept. 1, 1891	470,865	Deprez, M. and Carpenter, J -----	Mar. 15, 1892
460,071	Hunter, R. M -----	Sept. 22, 1891	472,193	Marshall, W -----	Apr. 5, 1892
461,139	Kennedy, R -----	Oct. 13, 1891	472,379	Marshall, W -----	Apr. 5, 1892
462,418	Tesla, N -----	Nov. 3, 1891	476,843	Tyler, H. L -----	June 14, 1892
464,822	Edison, T. A -----	Dec. 8, 1891			

## 172. MOTIVE POWER.—9. CAR BRAKES.

457,016	Verstraete, E -----	Aug. 4, 1891	464,002	Atwood, L. M. C -----	Dec. 1, 1891
457,067	Arnold, C. R -----	Aug. 4, 1891	465,034	Verstraete, E -----	Dec. 15, 1891
458,249	Greenamyer, C. V -----	Aug. 25, 1891	466,212	Atwood, La M. C -----	Dec. 29, 1891
458,587	Lincoln, J. C -----	Sept. 1, 1891	467,243	Walter, H. E -----	Jan. 19, 1892
461,770	Ambler, A. J -----	Oct. 20, 1891	467,259	Verstraete, E -----	Jan. 19, 1892
461,808	Atwood, L. M. C -----	Oct. 27, 1891	470,505	Redmond, J -----	Mar. 8, 1892
462,793	Collier, J. D. and Miller, J. K. P. -----	Nov. 10, 1891	472,329	Blanchard, G. W -----	Apr. 5, 1892

## 172. MOTIVE POWER.—15. DENTAL INSTRUMENTS.

464,231	Robinson, J. R -----	Dec. 1, 1891	467,738	Horton, W. P., jr -----	Jan. 26, 1892
---------	----------------------	--------------	---------	-------------------------	---------------

## 172. MOTIVE POWER.—152. ELEVATORS.

456,908	Reynolds, G. H -----	July 28, 1891	466,973	Baxter, W., jr -----	Jan. 12, 1892
11,185	Perkins, F. B ----- (Reis.)	Aug. 4, 1891	467,192	Otis, N. P. and Smith, R. C -----	Jan. 19, 1892
458,977	Otis, N. P. and Smith, R. C -----	Sept. 1, 1891	468,100	Leonard, H. W -----	Feb. 2, 1892
459,229	Blades, H. H -----	Sept. 8, 1891	468,253	Neuburger, A -----	Feb. 2, 1892
460,541	Smith, R. C -----	Sept. 29, 1891	468,903	Smith, R. C -----	Feb. 16, 1892
461,052	Shaw, A. J -----	Oct. 13, 1891	469,361	Watson, R. -----	Feb. 23, 1892
462,527	Blades, H. H. and McKee, W. J. -----	Nov. 3, 1891	470,158	Sturgeon, C. J -----	Mar. 1, 1892
463,615	Baxter, W., jr -----	Nov. 24, 1891	471,063	Smith, R. C -----	Mar. 15, 1892
464,470	Baxter, W., jr -----	Dec. 1, 1891	471,064	Smith, R. C -----	Mar. 15, 1892
465,999	Shaw, A. J -----	Dec. 29, 1891	471,100	Coyle, A. M -----	Mar. 22, 1892
466,037	Herdman, F. E -----	Dec. 29, 1891	472,909	Pratt, C. R -----	Apr. 12, 1892
466,447	Smith, R. C -----	Jan. 5, 1892	477,100	Clark, J. H -----	June 14, 1892

## 172. MOTIVE POWER.—36. MOTORS.

455,765	Porter, H. H -----	July 14, 1891	465,360	Diehl, P. and Bennett, E. H., jr -----	Dec. 15, 1891
457,127	Luce, W. B -----	Aug. 4, 1891	465,361	Diehl, P. and Bennett, E. H., jr -----	Dec. 15, 1891
457,338	Blades, H. H -----	Aug. 11, 1891	465,404	Armstrong, C. G -----	Dec. 15, 1891
457,339	Blades, H. H -----	Aug. 11, 1891	467,048	Palmer, J. H -----	Jan. 12, 1892
457,534	Hill, W. S -----	Aug. 11, 1891	467,449	Van Depoele, C. J -----	Jan. 19, 1892
457,902	Kintner, C. J -----	Aug. 18, 1891	467,537	Gutmann, L -----	Jan. 26, 1892
458,976	Otis, N. P. and Smith, R. C -----	Sept. 1, 1891	467,924	Darley, J. W -----	Feb. 2, 1892
460,076	Wheeler, S. S -----	Sept. 22, 1891	468,716	Wilson, J. T -----	Feb. 9, 1892
460,087	Hewett, E. M. S -----	Sept. 22, 1891	468,953	Lundell, R -----	Feb. 16, 1892
460,125	Fink, W. M -----	Sept. 29, 1891	469,319	Phelps, W. J -----	Feb. 23, 1892
462,369	Blackwell, F. O -----	Nov. 3, 1891	469,712	Parcelle, A. L -----	Mar. 1, 1892
463,605	Lahmeyer, W -----	Nov. 17, 1891	472,283	Wright, P -----	Apr. 5, 1892
464,063	Collom, M. H -----	Dec. 1, 1891	473,960	Reckenzaun, A -----	May 3, 1892
464,948	Wheeler, S. S -----	Dec. 8, 1891	474,623	Andrews, W. S -----	May 15, 1892
11,210	Groswith, H ----- (Reis.)	Dec. 15, 1891	477,483	Yeiser, F -----	June 21, 1892
465,292	Rice, E. W., jr -----	Dec. 15, 1891			

## 172. MOTIVE POWER.—120. MOTORS—ALTERNATING.

455,773	Stanley, W., jr., and Kelly, J. F. -----	July 14, 1891	459,772	Tesla, N -----	Sept. 22, 1891
456,804	Von Dolivo-Dobrowolsky, M. -----	July 28, 1891	460,046	Bradley, C. S -----	Sept. 22, 1891
457,875	De Ferranti, S. Z -----	Aug. 18, 1891	463,314	Gutmann, L -----	Nov. 17, 1891
458,162	Gutmann, L -----	Aug. 25, 1891	464,666	Tesla, N -----	Dec. 8, 1891
458,164	Gutmann, L -----	Aug. 25, 1891	464,671	Blathy, O. T -----	Dec. 8, 1891

## 172. MOTIVE POWER.—120. MOTORS—ALTERNATING—Continued.

No.	NAME.	DATE.	No.	NAME.	DATE.
465,853	Hicks, T. H -----	Dec. 29, 1891	476,346	Wightman, M. J -----	June 7, 1892
471,155	Thomson, E -----	Mar. 22, 1892	476,347	Wilson, D. H -----	June 7, 1892
474,787	Wagner, H. A. and Schmedtmann, F. -----	May 10, 1892			

## 172. MOTIVE POWER.—126. MOTORS—RECIPROCATING.

455,711	Goode, L. G -----	July 7, 1891	461,295	Van Depoele, C. J -----	Oct. 13, 1891
458,869	Van Depoele, C. J -----	Sept. 1, 1891	467,450	Van Depoele, C. J -----	Jan. 19, 1892
458,872	Van Depoele, C. J -----	Sept. 1, 1891	473,929	Horford, H. H -----	May 3, 1892
458,873	Van Depoele, C. J -----	Sept. 1, 1891	475,410	McKay, H. S -----	May 24, 1892
459,633	Walter, H. E -----	Sept. 15, 1891	476,225	Carpenter, W. P -----	May 31, 1892

## 172. MOTIVE POWER.—83. TRANSMISSION OF POWER.

455,520	Van Depoele, C. J -----	July 7, 1891	466,541	Marvin, H. N -----	Jan. 5, 1892
455,683	Von Dolivo-Dobrowolsky, M -----	July 7, 1891	467,451	Van Depoele, C. J -----	Jan. 19, 1892
458,870	Van Depoele, C. J -----	Sept. 1, 1891	467,509	Marvin, H. N -----	Jan. 26, 1892
458,874	Van Depoele, C. J -----	Sept. 1, 1891	467,510	Marvin, H. N -----	Jan. 26, 1892
458,954	Van Depoele, C. J -----	Sept. 1, 1891	469,441	Wightman, M. J -----	Feb. 23, 1892
461,294	Van Depoele, C. J -----	Oct. 13, 1891	469,515	Von Dolivo-Dobrowolsky, M -----	Feb. 23, 1892
461,297	Van Depoele, C. J -----	Oct. 13, 1891	470,199	Kennedy, R -----	Mar. 8, 1892
463,802	Leonard, H. W -----	Nov. 24, 1891	477,250	Du Bois-Reymond, A. E -----	June 21, 1892*

## 173. CONDUCTORS.—13. CONDUCTORS.

455,789	Cuttriss, C -----	July 14, 1891	465,564	Johns, H. W -----	Dec. 22, 1891
455,904	McCracken, E. D -----	July 14, 1891	465,888	Reed, T. L -----	Dec. 29, 1891
456,120	McCracken, E. D -----	July 14, 1891	466,250	Marsh, J. W -----	Dec. 29, 1891
456,271	Herrick, C. H -----	July 21, 1891	466,268	Connor, W. A. and Marsh, J. W -----	Dec. 29, 1891
456,611	Balsley, W. H -----	July 28, 1891	468,388	Newton, C. O -----	Feb. 9, 1892
457,761	Dillon, J -----	Aug. 11, 1891	468,585	Vogler, W -----	Feb. 9, 1892
457,828	Morford, I. E -----	Aug. 18, 1891	469,208	Greenfield, E. T -----	Feb. 16, 1892
458,316	Degenhardt, F. E -----	Aug. 25, 1891	469,241	Gritten, W. and Parmley, A -----	Feb. 23, 1892
459,378	McCracken, E. D -----	Sept. 8, 1891	469,469	Greenfield, E. T -----	Feb. 23, 1892
459,385	Libbey, H. W -----	Sept. 8, 1891	469,470	Greenfield, E. T -----	Feb. 23, 1892
459,509	Johns, H. W -----	Sept. 15, 1891	469,522	Hayes, H. V -----	Feb. 23, 1892
459,523	Keller, J. N. and McCoy, J. A -----	Sept. 15, 1891	470,883	Vanstone, S -----	Mar. 15, 1892
459,941	Brooks, D., jr -----	Sept. 22, 1891	470,924	Edison, T. A -----	Mar. 15, 1892
460,725	Markle, J. R -----	Oct. 6, 1891	471,587	Williams, J. B. -----	Mar. 29, 1892
461,195	Dillon, J -----	Oct. 13, 1891	471,588	Williams, J. B. -----	Mar. 29, 1892
462,489	Johnson, E. H -----	Nov. 3, 1891	472,643	Patterson, W. R -----	Apr. 12, 1892
462,681	Barrett, J. A -----	Nov. 10, 1891	472,933	O'Connor, T. F -----	Apr. 12, 1892
463,079	Snediker, C. T -----	Nov. 10, 1891	473,713	Rueter, H. A -----	Apr. 26, 1892
463,107	Degenhardt, F. E -----	Nov. 10, 1891	475,920	Bassett, C. W -----	May 31, 1892
463,809	Klotzbach, C -----	Nov. 24, 1891	476,464	Jackson, C. E -----	June 7, 1892
463,810	Koltzbach, C -----	Nov. 24, 1891	477,787	Snediker, C. T -----	June 28, 1892
464,986	Oehrle, W. E -----	Dec. 15, 1891			

## 173. CONDUCTORS.—94. CONDUCTORS—LEAD COVERED.

464,475	Fisher, H. W -----	Dec. 1, 1891	476,484	Patterson, W. R -----	June 7, 1892
---------	--------------------	--------------	---------	-----------------------	--------------

## 173. CONDUCTORS.—70. CONDUCTORS—UNDERGROUND.

456,376	Delafor, M -----	July 21, 1891	469,765	Wilson, C. H -----	Mar. 1, 1892
456,408	Hadlock, W. E -----	July 21, 1891	470,237	Freeman, C. A -----	Mar. 8, 1892
458,778	Reilly, J. C -----	Sept. 1, 1891	470,329	Hultman, C. A. W -----	Mar. 8, 1892
460,607	Vogler, W -----	Oct. 6, 1891	470,946	Munsie, J. T -----	Mar. 15, 1892
461,239	Foster, H. A -----	Oct. 13, 1891	473,044	Wilson, C. H -----	Apr. 19, 1892
461,677	Greenfield, E. T -----	Oct. 20, 1891	474,468	Bruner, A -----	May 10, 1892
462,648	Bolles, F. G -----	Nov. 3, 1891	477,218	McLeod, J. D -----	June 21, 1892
469,723	Robbins, E. P -----	Mar. 1, 1892			

## 173. CONDUCTORS.—14. CONNECTORS.

No.	NAME.	DATE.	No.	NAME.	DATE.
457,865	Munson, G. T	Aug. 18, 1891	468,086	Lillard, W. B	Feb. 2, 1892
460,048	Farwell, F. M	Sept. 22, 1891	468,293	Coleman, C. J	Feb. 2, 1892
461,452	Scrugham, G. R	Oct. 20, 1891	468,654	Gibbs, G	Feb. 9, 1892
461,563	Ball, H. P	Oct. 20, 1891	469,283	Strauss, J. B	Feb. 23, 1892
461,568	Delany, P. B	Oct. 20, 1891	470,820	Garland, W. H	Mar. 15, 1892
461,868	Flaming, J. H	Oct. 27, 1891	471,625	Smith, R. H	Mar. 29, 1892
464,022	Hield, W. J	Dec. 1, 1891	473,637	McElroy, J. F	Apr. 26, 1892
464,368	Kimble, S. W	Dec. 1, 1891	474,584	Tobey, C. W	May 10, 1892
465,202	Preston, W. C	Dec. 15, 1891	475,180	Burton, G. D	May 17, 1892
465,430	Desant, W. F. Z	Dec. 15, 1891	476,080	Sauche, H	May 31, 1892
467,391	Neu, G. S	Jan. 26, 1892			

## 173. CONDUCTORS.—28. INSULATORS.

458,221	Chase, M. C	Aug. 25, 1891	468,053	Englund, A. H	Feb. 2, 1892
458,964	Ball, H. P	Sept. 1, 1891	469,940	Hammond, C. N	Mar. 1, 1892
459,843	Thomas, V. A	Sept. 22, 1891	472,529	Doren, D	Apr. 12, 1892
460,448	Ross, F. A	Sept. 29, 1891	474,569	Anderson, A	May 10, 1892
461,272	Perret, F. A	Oct. 13, 1891	475,781	Lloyd, E. L	May 31, 1892
461,631	Hewitt, R. J	Oct. 20, 1891	476,207	Locke, F. M	May 31, 1892
463,172	Smith, T. C	Nov. 17, 1891	476,604	Brady, T. H	June 7, 1892
463,587	Thomas, V. A	Nov. 17, 1891	476,813	Pass, J. and Seymour, A. P	June 14, 1892
463,588	Thomas, V. A	Nov. 17, 1891	476,827	Seymour, A. P	June 14, 1892
463,756	Jacobs, C. A	Nov. 24, 1891	476,828	Seymour, A. P	June 14, 1892
463,955	Newell, H. F	Nov. 24, 1891	476,964	Seymour, A. P	June 14, 1892
464,770	Green, J. J. and Brown, G. C	Dec. 8, 1891	477,732	Abbott, A. V	June 28, 1892
465,961	Albanese, G. S	Dec. 29, 1891	477,753	Goold, F. D'A	June 28, 1892
466,726	Norgrave, G. B	Jan. 5, 1892	477,781	Sachs, J	June 28, 1892
467,941	Lee, C. T	Feb. 2, 1892	477,980	Wirt, H. E	June 28, 1892

## 173. CONDUCTORS.—31. LIGHTNING RODS.

470,514	Simpson, H				Mar. 8, 1892
---------	------------	--	--	--	--------------

## 173. CONDUCTORS.—43. RHEOSTATS.

456,280	Van Vleck, J	July 21, 1891	468,613	Short, S. H	Jan. 26, 1892
457,090	Mosher, J. A	Aug. 4, 1891	468,752	Shaw, A. J	Feb. 9, 1892
459,794	Short, S. H	Sept. 22, 1891	472,062	Masury, J. R	Apr. 5, 1892
459,800	Waite, H. E	Sept. 22, 1891	473,209	Carey, A. C	Apr. 19, 1892
460,972	Kessner, O. A	Oct. 13, 1891	474,073	Wirshing, A	May 3, 1892
462,053	Lacey, T. A	Oct. 27, 1891	474,957	Herrick, A. B	May 17, 1892
465,218	Sprague, F. J. and Pratt, C. R	Dec. 15, 1891	475,255	Sterling, W. A	May 17, 1892
465,512	Andrews, W. S. and Warren, A. K.	Dec. 22, 1891	475,523	Willms, C	May 24, 1892
			475,529	Willms, C	May 24, 1892
467,078	Blackwell, F. O	Jan. 12, 1892	475,898	Schneider, F. W. A	May 31, 1892
467,255	Lemp, H	Jan. 19, 1892	474,247	Cummings, S. K	June 21, 1892
467,338	Williams, C	Jan. 19, 1892	477,708	Sigsbee, C. D., Hayward, T. S. and Anderson, F. S.	June 28, 1892
467,611	Mosher, J. A	Jan. 26, 1892			

## 174. MEDICAL AND SURGICAL.—87. BATHS.

455,981	Bethel, G. H	July 14, 1891	477,975	Waite, H. E	July 28, 1891
459,852	Hofmann, C. P. and Van Houten, W. B.	Sept. 22, 1891			

## 174. MEDICAL AND SURGICAL.—88. BODY-WEAR.

455,680	Bogardus, C. A	July 7, 1891	462,732	Petterson, P. E	Nov. 10, 1891
456,021	Fancher, L. N	July 14, 1891	463,945	Crisp, J. A	Nov. 24, 1891
456,219	Granert, E	July 21, 1891	464,691	Anderson, L	Dec. 8, 1891
458,536	Mohn, G. F	Aug. 25, 1891	465,093	Erickson, A	Dec. 15, 1891
458,952	Riley, J. M	Sept. 1, 1891	469,796	Shults, J. W	Mar. 1, 1892
458,953	Riley, J. M	Sept. 1, 1891	469,797	Shults, J. W	Mar. 1, 1892
459,143	Mathews, H. W	Sept. 8, 1891	473,133	Soden, F. H	Apr. 19, 1892
459,144	Mathews, H. W	Sept. 8, 1891	476,473	Mears, R. S	June 7, 1892
459,681	Dorenwend, C. H	Sept. 15, 1891	477,913	Potter, W. F	June 28, 1892
459,942	Brown, F. H	Sept. 22, 1891			



## 174. MEDICAL AND SURGICAL.—89. ELECTRODES.

No.	NAME.	DATE.	No.	NAME.	DATE.
463,785	Connable, F. L. and Harper, T. V.	Nov. 24, 1891	472,968	Bradley, S. R. -----	Apr. 12, 1892
471,850	Bonis, H. -----	Mar. 29, 1892	474,977	Thomas, F. -----	May 17, 1892

## 174. MEDICAL AND SURGICAL.—172. CHAIRS AND COUCHES.

459,127	Overall, G. W. -----	Sept. 8, 1891
---------	----------------------	---------------

## 174. MEDICAL AND SURGICAL.—173. COMBS AND BRUSHES.

462,599	Staunton, A. -----	Nov. 3, 1891
---------	--------------------	--------------

## 174. MEDICAL AND SURGICAL.—175. EXERCISING APPARATUS.

465,949	Roovers, A. W. and A. H. -----	Dec. 29, 1891
---------	--------------------------------	---------------

## 175. SPECIAL APPLICATIONS.—4. APPLICATIONS—GENERAL.

457,343	Edison, T. A. -----	Aug. 11, 1891	464,245	Dewey, M. W. -----	Dec. 1, 1891
458,784	Forsbacker, C. A. C. -----	Sept. 1, 1891	467,085	Decker, P. -----	Jan. 12, 1892
459,222	Lehmann, F. A. -----	Sept. 8, 1891	470,155	Holson, A. B. -----	Mar. 1, 1892
462,807	Collier, J. D. and Miller, J. K. P. -----	Nov. 10, 1891	471,809	Casperson, C. A. -----	Mar. 29, 1892
464,125	Varley, R., jr. -----	Dec. 1, 1891	473,820	Brown, L. L. -----	Apr. 26, 1892
464,244	Dewey, M. W. -----	Dec. 1, 1891			

## 175. SPECIAL APPLICATIONS.—5. APPLICATIONS—TOOLS AND MACHINES.

458,278	Boening, E. -----	Aug. 25, 1891	460,695	White, L. S. -----	Oct. 6, 1891
---------	-------------------	---------------	---------	--------------------	--------------

## 175. SPECIAL APPLICATIONS.—21. ELECTRO-MAGNETS.

460,926	Williams, J. T. -----	Oct. 6, 1891	469,672	Ayres, A. D. -----	Mar. 1, 1892
464,198	Lundstedt, O. E. -----	Dec. 1, 1891	476,236	Ayres, A. D. -----	June 7, 1892

## 175. SPECIAL APPLICATIONS.—16. HEATERS.

455,420	Thomson, E. -----	July 7, 1891	466,133	Angell, E. E. -----	Dec. 29, 1891
455,421	Thomson, E. -----	July 7, 1891	466,266	Blanchard, G. W. -----	Dec. 29, 1891
456,540	Bassler, J. H. -----	July 21, 1891	467,075	Appleyard, A. E. -----	Jan. 12, 1892
456,541	Wiegand, S. L. -----	July 21, 1891	467,233	Lemp, H. and Moody, W. S. -----	Jan. 19, 1892
457,362	Mitchell, W. -----	Aug. 11, 1891	467,538	Gutmann, L. -----	Jan. 26, 1892
457,457	Robison, C. W. and S. D. -----	Aug. 11, 1891	468,938	Burton, G. D. -----	Feb. 16, 1892
457,561	Kennedy, R. -----	Aug. 11, 1891	469,135	Godefroy, A. F. -----	Feb. 16, 1892
457,745	Mitchell, W. -----	Aug. 11, 1891	470,418	Cápek, J. V. -----	Mar. 8, 1892
458,163	Gutmann, L. -----	Aug. 25, 1891	470,419	Cápek, J. V. -----	Mar. 8, 1892
459,070	Mitchell, W. -----	Sept. 8, 1891	474,398	Mitchell, W. -----	May 10, 1892
460,980	Mitchell, W. -----	Oct. 13, 1891	474,797	Mitchell, W. -----	May 10, 1892
461,814	Cápek, J. V. -----	Oct. 27, 1891	474,964	Mitchell, W. -----	May 10, 1892
462,261	Lemp, H. and Anderson, C. G. -----	Nov. 3, 1891	475,169	Watson, A. H. and Antoni, F. E. -----	May 17, 1892
462,262	Lemp, H. -----	Nov. 3, 1891	475,179	Burton, G. D. -----	May 17, 1892
462,263	Lemp, H. -----	Nov. 3, 1891	475,187	Burton, G. D. and Angell, E. E. -----	May 17, 1892
462,532	Cápek, J. V. -----	Nov. 3, 1891	475,189	Burton, G. D. and Angell, E. E. -----	May 17, 1892
462,926	Hunter, R. M. -----	Nov. 10, 1891	475,190	Burton, G. D. and Angell, E. E. -----	May 17, 1892
464,055	Wright, P. -----	Dec. 1, 1891	475,442	Cuttriss, C. -----	May 24, 1892
464,247	Dewey, M. W. -----	Dec. 1, 1891	475,703	Pease, L. E. -----	May 24, 1892
465,423	Boles, W. H. -----	Dec. 15, 1891	477,628	Carpenter, C. E. -----	June 21, 1892
466,132	Angell, E. E. -----	Dec. 29, 1891			

## 175. SPECIAL APPLICATIONS.—168. HEATING—METAL WORKING.

No.	NAME.	DATE.	No.	NAME.	DATE.
458,115	Thomson, E	Aug. 18, 1891	475,178	Burton, G. D	May 17, 1892
458,176	Lemp, H	Aug. 25, 1891	475,181	Burton, G. D	May 17, 1892
458,177	Lemp, H	Aug. 25, 1891	475,182	Burton, G. D	May 17, 1892
458,188	Rasmussen, E	Aug. 25, 1891	475,183	Burton, G. D	May 17, 1892
462,207	Coffin, C. L	Oct. 27, 1891	475,184	Burton, G. D	May 17, 1892
463,486	Coffin, C. L	Nov. 17, 1891	475,185	Burton, G. D. and Angell, E. E.	May 17, 1892
463,487	Coffin, C. L	Nov. 17, 1891	475,186	Burton, G. D. and Angell, E. E.	May 17, 1892
465,089	Ries, E. E	Dec. 15, 1891	475,188	Burton, G. D. and Angell, E. E.	May 17, 1892
465,866	Lemp, H	Dec. 29, 1891	475,191	Burton, G. D. and Angell, E. E.	May 17, 1892
466,131	Angell, E. E	Dec. 29, 1891	475,192	Burton, G. D. and Angell, E. E.	May 17, 1892
466,825	Gendron, P	Jan. 12, 1892	475,193	Burton, G. D. and Angell, E. E.	May 17, 1892
465,752	Howard, H	Jan. 26, 1892	475,194	Burton, G. D. and Angell, E. E.	May 17, 1892
470,038	Coffin, C. L	Mar. 1, 1892	475,195	Burton, G. D. and Angell, E. E.	May 17, 1892
470,566	Hill, T	Mar. 8, 1892	475,196	Burton, G. D. and Angell, E. E.	May 17, 1892
471,242	De Meritens, A	Mar. 22, 1892	475,232	Burton, G. D. and Angell, E. E.	May 17, 1892
472,055	Howard, H	Apr. 5, 1892	475,264	Burton, G. D	May 17, 1892
472,634	Burton, G. D	Apr. 12, 1892	475,667	Coffin, C. L	May 24, 1892
473,008	Howard, H	Apr. 19, 1892	477,101	Coffin, C. L	June 14, 1892

## 175. SPECIAL APPLICATIONS.—171. HEATING—PRESSING AND IRONING.

457,164	Mitchell, W	Aug. 4, 1891	469,792	Mitchell, W	Mar. 1, 1892
468,426	Mitchell, W	Feb. 9, 1892			

## 175. SPECIAL APPLICATIONS.—170. HEATING—SOLDERING.

460,428	Coffin, C. L	Sept. 29, 1891	469,949	Ritter, J. J	Mar. 1, 1892
460,978	Mitchell, W	Oct. 13, 1891			

## 175. SPECIAL APPLICATIONS.—115. IGNITING DEVICES—AUTOMATIC.

456,684	Wunderlich, A	July 28, 1891	458,154	Clarke, G. D	Aug. 25, 1891
456,685	Wunderlich, A	July 28, 1891	469,408	Nourse, R. C. and Lane, T. W	Feb. 23, 1892

## 175. SPECIAL APPLICATIONS.—116. IGNITING DEVICES—MANUAL.

458,486	Pinkham, H. A	Aug. 25, 1891	463,754	Engert, G. N	Nov. 24, 1891
463,384	Foster, W. W	Nov. 17, 1891	470,256	Pinkham, H. A	Mar. 8, 1892

## 175. SPECIAL APPLICATIONS.—90. SEPARATORS.

455,808	Wenström, J	July 14, 1891	466,514	Reed, C. J	Jan. 5, 1892
455,809	Wenström, J	July 14, 1891	466,515	Reed, C. J	Jan. 5, 1892
455,984	Fiske, H. G	July 14, 1891	467,645	Richards, F. H	Jan. 26, 1892
455,985	Fiske, H. G	July 14, 1891	467,833	Richards, F. H	Jan. 26, 1892
456,507	Fiske, H. G	July 21, 1891	468,540	Cane, H	Feb. 9, 1892
456,622	Lain, D. E	July 28, 1891	468,599	Ferraris, E	Feb. 9, 1892
460,962	Gonyard, G. M	Oct. 13, 1891	468,706	Southworth, H. W	Feb. 9, 1892
462,321	Moffatt, R. M. and Chichester, S	Nov. 3, 1891	470,455	Thompson, C. T. and Sanders, R. H.	Mar. 8, 1892
462,322	Moffatt, R. M. and Chichester, S	Nov. 3, 1891			
462,305	Hoffman, W. D	Nov. 17, 1891	470,456	Thompson, C. T. and Sanders, R. H.	Mar. 8, 1892
464,816	Conkling, W. G	Dec. 8, 1891			
465,349	Ball, C. M	Dec. 15, 1891	470,929	Edison, T. A	Mar. 15, 1892
466,513	Reed, C. J	Jan. 5, 1892			

## 175. SPECIAL APPLICATIONS.—84. VALVE CONTROLLERS.

456,835	McBride, J	July 28, 1891	467,551	Bergmann, A	Jan. 26, 1892
457,762	Dittmar, A. A. and Falkenhanger, H.	Aug. 11, 1891	469,462	Beers, J. F. and F. C	Feb. 23, 1892
			469,471	Hailstone, W. W	Feb. 23, 1892
457,838	Kilbourn, W. H	Aug. 18, 1891	470,143	Kilbourn, W. H	Mar. 1, 1892
461,554	Stout, J. V	Oct. 20, 1891	471,999	Nash, N. E. and Eddy, G. A	Mar. 29, 1892
461,555	Stout, J. V	Oct. 20, 1891	472,461	Lundstedt, O. E	Apr. 5, 1892
463,198	Melleit, L	Nov. 17, 1891	472,579	Lundstedt, O. E	Apr. 12, 1892
465,212	Schilling, G. W	Dec. 15, 1891	472,759	Lundstedt, O. E	Apr. 12, 1892
466,500	Stout, J. V	Jan. 5, 1892	473,699	Goodhue, C. F	Apr. 26, 1892
466,781	Garland, F. M	Jan. 12, 1892	476,376	Fleming, W. B	June 7, 1892
467,153	Chatard, F. E	Jan. 19, 1892	476,573	Stout, J. V	June 7, 1892
467,287	Hogan, J. E	Jan. 19, 1892			



## 176. ELECTRIC LIGHTING.—80. CUT-OUTS—ELECTRO-MAGNETIC.

No.	NAME.	DATE.	No.	NAME.	DATE.
456,940	Cobb, S. H. -----	Aug. 4, 1891	466,508	Painter, G. E. -----	Jan. 5, 1892
457,483	Silvey, W. L. -----	Aug. 11, 1891	467,023	Spittle, G. W. -----	Jan. 12, 1892
457,572	Bergmann, S. -----	Aug. 11, 1891	467,919	Clough, A. L. -----	Feb. 2, 1892
458,656	Freeman, J. P. -----	Sept. 1, 1891	468,101	Murphy, J. B. -----	Feb. 2, 1892
459,560	Bryan, F. -----	Sept. 15, 1891	470,161	Wurts, A. -----	Mar. 1, 1892
459,786	Lean, G. R. -----	Sept. 22, 1891	470,697	Morse, C. H. -----	Mar. 15, 1892
460,701	Cleveland, W. B. -----	Oct. 6, 1891	471,997	Manship, E. A. -----	Mar. 29, 1892
463,192	Herrick, C. H. and Rand, W. M. -----	Nov. 17, 1891	473,282	Wooley, J. P. -----	Apr. 19, 1892

## 176. ELECTRIC LIGHTING.—79. CUT-OUTS—MECHANICAL.

455,747	Goodridge, W. M. -----	July 14, 1891	465,444	Barton, H. -----	Dec. 22, 1891
455,837	Dahlgren, C. G. and Svensson, J. H. -----	July 14, 1891	466,802	Rice, E. W., jr. -----	Jan. 12, 1892
456,250	Platt, O. S. -----	July 21, 1891	467,504	Haight, H. J. -----	Jan. 26, 1892
456,493	Loveil, S. H. -----	July 21, 1891	468,119	Thomson, E. -----	Feb. 2, 1892
458,880	Wissler, A. -----	Sept. 1, 1891	468,474	Rohrer, A. L. -----	Feb. 9, 1892
460,618	Wirt, C. -----	Sept. 6, 1891	470,748	Deacon, S. -----	Mar. 15, 1892
459,465	Allen, B. W. -----	Sept. 15, 1891	470,790	Moore, H. and Jarrard, O. O. -----	Mar. 15, 1892
461,298	Van Nort, S. P. -----	Oct. 13, 1891	471,271	Metzger, A. -----	Mar. 22, 1892
461,456	Swan, A. -----	Oct. 20, 1891	471,612	Hubbell, H. -----	Mar. 22, 1892
461,560	Ball, H. P. -----	Oct. 20, 1891	471,760	Perkins, C. G. -----	Mar. 29, 1892
461,561	Ball, H. P. -----	Oct. 20, 1891	472,610	Stanley, L. T. -----	Apr. 12, 1892
461,761	Lean, G. R. -----	Oct. 20, 1891	473,132	Soden, F. H. -----	Apr. 19, 1892
462,033	Cleveland, W. B. -----	Oct. 27, 1891	473,134	Soden, F. H. -----	Apr. 19, 1892
462,353	Hoopes, M. -----	Nov. 3, 1891	473,435	Warner, E. P. -----	Apr. 19, 1892
462,407	Hunter, R. M. -----	Nov. 3, 1891	473,595	Thum, M. -----	Apr. 26, 1892
462,836	Burnet, H. W. -----	Nov. 10, 1891	474,473	Hutchins, G. K. -----	May 10, 1892
463,311	Bagnall, E. J. -----	Nov. 17, 1891	474,921	Pfannkuche, G. -----	May 17, 1892
463,762	Thomson, E. -----	Nov. 24, 1891	476,613	Davis, C. E. -----	June 7, 1892
463,808	Fehr, L. A. -----	Nov. 24, 1891	476,781	Broadnax, F. -----	June 14, 1892
464,134	Varley, R., jr. -----	Dec. 1, 1891	476,792	Goodridge, W. M. -----	June 14, 1892
463,426	Chappell, C. P. -----	Dec. 15, 1891	476,829	Seymour, A. P. -----	June 14, 1892
			477,869	Pilkington, H. M. and White, R. S. -----	June 28, 1892

## 176. ELECTRIC LIGHTING.—154. CUT-OUTS—MECHANICAL—OSCILLATING SNAP.

457,110	Dauffenbach, C. -----	Aug. 4, 1891	471,237	Gibbs, J. S. -----	Mar. 22, 1892
457,300	Bryant, W. C. -----	Aug. 4, 1891	473,228	Johnson, E. H. -----	Apr. 19, 1892
457,301	Castor, L. D. -----	Aug. 4, 1891	474,050	Wood, J. J. -----	May 3, 1892
458,879	Wissler, A. -----	Sept. 1, 1891	477,374	Klein, C. J. -----	June 21, 1892
461,562	Ball, H. P. -----	Oct. 20, 1891	477,409	Greenfield, E. T. -----	June 21, 1892
465,511	Andrews, W. C. -----	Dec. 22, 1891	477,595	Linds, J. L. -----	June 21, 1892
465,618	Painter, G. E. -----	Dec. 22, 1891	477,612	Snow, E. A. -----	June 21, 1892

## 176. ELECTRIC LIGHTING.—178. CUT-OUTS—MECHANICAL—OSCILLATING SPRING.

468,125	Wright, A. -----	Feb. 2, 1892	469,220	Thomas, V. A. -----	Feb. 16, 1892
---------	------------------	--------------	---------	---------------------	---------------

## 176. ELECTRIC LIGHTING.—155. CUT-OUTS—MECHANICAL—ROTARY.

459,219	Castor, L. D. -----	Sept. 8, 1891	465,997	Martratt, G. B. -----	Dec. 29, 1891
459,706	Hart, G. W. -----	Sept. 15, 1891	467,540	Klein, C. J. -----	Jan. 26, 1892
463,396	Swan, A. -----	Nov. 17, 1891	472,027	Bergmann, S. and Scott, G. A. -----	Apr. 5, 1892

## 176. ELECTRIC LIGHTING.—156. CUT-OUTS—MECHANICAL—SLIDING.

466,244	Kelly, W. J. -----	Dec. 29, 1891	473,504	Hitchcock, H. K. -----	Apr. 26, 1892
471,993	Gibbs, J. S. -----	Mar. 29, 1892			

## 176. ELECTRIC LIGHTING.—78. CUT-OUTS—THERMAL.

451,800	Rice, E. W., jr. -----	July 14, 1891	460,140	Howell, J. W. -----	Sept. 29, 1891
458,396	Irish, W. F. -----	Aug. 25, 1891	460,538	Phillips, J. O. -----	Sept. 29, 1891
458,603	Van Nuis, C. S. and Vail, J. H. -----	Sept. 1, 1891	460,548	Ball, H. P. -----	Oct. 6, 1891
458,653	Bottomo, T. D. -----	Sept. 1, 1891	461,570	Favor, L. B. -----	Oct. 20, 1891
458,753	Hayes, H. V. and White, A. C. -----	Sept. 1, 1891	462,338	Thomson, E. -----	Nov. 3, 1891
459,704	Greenfield, E. T. -----	Sept. 15, 1891	462,339	Thomson, E. -----	Nov. 3, 1891

## 176. ELECTRIC LIGHTING.—78. CUT-OUTS—THERMAL—Continued.

No.	NAME.	DATE.	No.	NAME.	DATE.
462,349	Eckstrom, A. -----	Nov. 3, 1891	466,761	Wolton, J. A. -----	Jan. 5, 1892
462,452	Rice, E. W., jr. -----	Nov. 3, 1891	470,014	Scott, C. F. and Wurts, A. -----	Mar. 1, 1892
462,463	Ball, H. P. -----	Nov. 3, 1891	470,204	Weston, G. R. and A. W. -----	Mar. 8, 1892
463,213	Lemp, H. -----	Nov. 17, 1891	471,302	Marx, J. -----	Mar. 22, 1892
463,764	Wheeler, G. K. -----	Nov. 24, 1891	476,330	Thomson, E. -----	June 7, 1892
464,548	Arnold, C. R. -----	Dec. 8, 1891	476,530	Edison, T. A. -----	June 7, 1892
465,046	McLain, W. R. -----	Dec. 15, 1891	476,570	Sperry, E. A. -----	June 7, 1892
465,508	Wirt, H. C. -----	Dec. 22, 1891	476,970	Arnold, C. R. -----	June 14, 1892
465,983	Fisher, H. W. -----	Dec. 29, 1891	477,810	Molendo, H. -----	June 28, 1892
466,400	Edison, T. A. and Ott, J. T. -----	Jan. 5, 1892			

## 176. ELECTRIC LIGHTING.—110. LIGHTS—ARC AND INCANDESCENT.

475,544	Dobbie, R. S. -----	May 24, 1892
---------	---------------------	--------------

## 176. ELECTRIC LIGHTING.—105. LIGHTS—ARC, GRAVITY FEED, CLUTCH.

455,953	Scribner, C. E. -----	July 14, 1891	468,711	Waterhouse, A. G. -----	Feb. 9, 1892
458,719	Ward, B. B. -----	Sept. 1, 1891	469,347	Graves, W. -----	Feb. 23, 1892
458,987	Turbayne, W. A. -----	Sept. 1, 1891	471,234	Dewar, H. -----	Mar. 22, 1892
459,757	Logan, M. S. and Bailey, J. H. -----	Sept. 22, 1891	472,064	Mosher, J. A. -----	Apr. 5, 1892
462,624	Conroy, T. -----	Nov. 3, 1891	472,480	Hofmann, E. -----	Apr. 5, 1892
462,673	Russell, E. C. -----	Nov. 3, 1891	472,747	Ball, R. E. -----	Apr. 12, 1892
463,595	Clark, E. P. -----	Nov. 17, 1891	473,283	Adams, T. E. -----	Apr. 19, 1892
463,720	Hays, W. S. -----	Nov. 24, 1891	473,955	Pfuger, C. A. -----	May 3, 1892
464,682	Waterhouse, A. G. -----	Dec. 8, 1891	473,956	Pfuger, C. A. -----	May 3, 1892
465,514	Ball, H. P. -----	Dec. 22, 1891	474,091	Luce, W. B. -----	May 3, 1892
467,610	Mosher, J. A. -----	Jan. 26, 1892	476,493	Scribner, C. E. -----	June 7, 1892
467,656	Scribner, C. E. -----	Jan. 26, 1892	477,221	Parkee, L. -----	June 21, 1892

## 176. ELECTRIC LIGHTING.—106. LIGHTS—ARC, GRAVITY FEED, GEAR-CLUTCH.

459,510	Knowles, E. R. -----	Sept. 15, 1891	472,274	Rushmore, S. W. -----	Apr. 5, 1892
460,587	Libbey, H. W. -----	Oct. 6, 1891	473,076	Patin, O. -----	Apr. 19, 1892
461,659	Wirsching, A. and Schefbauer, R. -----	Oct. 20, 1891	473,536	Ward, B. B. -----	Apr. 26, 1892
462,698	Giles, J. E. -----	Nov. 10, 1891	475,289	Brianne, L. -----	May 24, 1892
464,132	Nicholson, W. A. -----	Dec. 1, 1891	475,727	Gaston, J. E. -----	May 24, 1892
467,199	Riedel, J. -----	Jan. 19, 1892	476,425	Smith, E. F. -----	June 7, 1892
469,041	Dobbie, R. S. -----	Feb. 16, 1892			

## 176. ELECTRIC LIGHTING.—111. LIGHTS—ARC, NON-FEEDING.

455,576	Olán, J. W. T. -----	July 7, 1891
---------	----------------------	--------------

## 176. ELECTRIC LIGHTING.—107. LIGHTS—ARC, POSITIVE FEED.

477,273	Rutherford, N. F. -----	June 21, 1892
---------	-------------------------	---------------

## 176. ELECTRIC LIGHTING.—109. LIGHTS—ARC, POSITIVE FEED, GEAR-CLUTCH.

456,598	Sautter, F. L. -----	July 28, 1891	463,035	Gastou, J. E. -----	Nov. 10, 1891
458,025	Thomsou, E. -----	Aug. 18, 1891	469,093	Sawyer, H. -----	Feb. 16, 1892
458,500	Sauder, H. W. -----	Aug. 25, 1891	474,266	Shepard, A. L. -----	May 3, 1892
458,876	Ward, B. B. -----	Sept. 1, 1891	476,993	Edison, T. A. -----	June 14, 1892
461,144	Thomsou, E. -----	Oct. 13, 1891	477,427	Maguire, F. V. -----	June 21, 1892

## 176. ELECTRIC LIGHTING.—112. LIGHTS—ARC, SPECIAL FEATURES.

458,386	Garland, N. M. -----	Aug. 25, 1891	462,660	Carpenter, F. H. -----	Nov. 3, 1891
458,387	Garland, N. M. -----	Aug. 25, 1891	462,661	Carpenter, F. H. -----	Nov. 3, 1891
458,388	Garland, N. M. -----	Aug. 25, 1891	462,662	Chapman, H. E. -----	Nov. 3, 1891
458,389	Garland, N. M. -----	Aug. 25, 1891	462,663	Chapman, H. E. -----	Nov. 3, 1891
458,718	Seymour, A. P. -----	Sept. 1, 1891	462,669	Johnson, F. A. -----	Nov. 3, 1891
459,845	Thomas, V. A. -----	Sept. 22, 1891	462,756	Wood, J. J. -----	Nov. 10, 1891
459,846	Thomas, V. A. -----	Sept. 22, 1891	463,154	Jandus, W. -----	Nov. 17, 1891
460,652	Openlander, E. J. -----	Oct. 6, 1891	463,586	Thomas, V. A. -----	Nov. 17, 1891
461,420	Brush, C. F. -----	Oct. 20, 1891	465,685	Waldecker, H. C. -----	Dec. 22, 1891



## 176. ELECTRIC LIGHTING.—112. LIGHTS—ARC, SPECIAL FEATURES—Continued.

No.	NAME.	DATE.	No.	NAME.	DATE.
467,511	Matson, D. B	Jan. 26, 1892	471,190	Pfluger, C. A	Mar. 22, 1892
468,411	Parmly, S. P	Feb. 9, 1892	471,730	Dillon, T	Mar. 29, 1892
468,412	Pfluger, C. A	Feb. 9, 1892	472,935	Pfluger, C. A	Apr. 12, 1892
468,413	Pfluger, C. A	Feb. 9, 1892	476,700	Thurston, R. H	June 7, 1892
469,050	Weeks, N., jr	Feb. 16, 1892	477,219	McNellis, C	June 21, 1892
470,638	Dobbie, R. S	Mar. 8, 1892	477,890	Dillon, T	June 28, 1892
470,766	Pfluger, C. A	Mar. 15, 1892	477,984	Bell, C	June 28, 1892

## 176. ELECTRIC LIGHTING.—102. LIGHTS—FILAMENTS AND CARBONS.

457,763	Eltringham, W. P	Aug. 11, 1891	464,005	Bradley, J	Dec. 1, 1891
457,830	Von der Kammer, J	Aug. 18, 1891	464,719	Böhm, L. K	Dec. 8, 1891
458,376	Richards, W. S	Aug. 25, 1891	467,169	Hickley, P	Jan. 19, 1892
460,595	Roberts, I. L	Oct. 6, 1891	469,486	Moses, P	Feb. 23, 1892
460,596	Roberts, I. L	Oct. 6, 1891	470,922	Edison, T. A	Mar. 15, 1892
460,597	Roberts, I. L	Oct. 6, 1891	470,925	Edison, T. A	Mar. 15, 1892
460,680	Libbey, H. W	Oct. 6, 1891	471,526	Libbey, H. W	Mar. 22, 1892
461,797	Marshall, J. T	Oct. 20, 1891	473,841	Hulin, L	Apr. 26, 1892
463,512	Holmes, P. H	Nov. 17, 1891	476,292	Moses, P	June 7, 1892

## 176. ELECTRIC LIGHTING.—18. LIGHTS—INCANDESCENT.

457,141	Wertz, X	Aug. 4, 1891	469,483	Manchester, F. H	Feb. 23, 1892
459,100	Roberts, E. P	Sept. 8, 1891	470,471	Carey, A. C	Mar. 8, 1892
459,835	Edison, T. A	Sept. 22, 1891	471,576	Smith, F. S	Mar. 29, 1892
469,991	Reinmann, A. L	Oct. 13, 1891	473,208	Carey, A. C	Apr. 19, 1892
462,540	Edison, T. A	Nov. 3, 1891	475,394	Green, H	May 24, 1892
466,562	Grant, P	Jan. 5, 1892	475,998	Burnett, H. D. and Doane, S. E	May 31, 1892
467,270	Wilkins, C. H	Jan. 19, 1892	476,183	Ball, J	May 31, 1892
467,523	Roberts, E. P	Jan. 26, 1892	476,501	Weaver, E. E. and Manypenny, G. B	June 7, 1892
467,576	Gutman, H. J	Jan. 26, 1892			
467,982	Piffard, D. H	Feb. 2, 1892	476,528	Edison, T. A	June 7, 1892
469,482	Manchester, F. H	Feb. 23, 1892	476,992	Edison, T. A	June 14, 1892

## 176. ELECTRIC LIGHTING.—113. LIGHTS—INCANDESCENT—SPECIAL FEATURES.

455,366	Swift, H. E	July 7, 1891	465,684	Villart, G. E. and Rondel, V. E	Dec. 22, 1891
455,972	Oudin, P. and Kratz-Boussac, H. O.	July 14, 1891	466,509	Painter, G. E	Jan. 5, 1892
			467,276	Curtiss, J. L	Jan. 19, 1892
457,573	Bergmann, S	Aug. 11, 1891	468,772	McCarthy, L	Feb. 9, 1892
457,687	Weimer, F. A	Aug. 11, 1891	468,773	McCarthy, L	Feb. 9, 1892
458,279	Bristol, L	Aug. 25, 1891	469,362	Boardman, F. R	Feb. 23, 1892
459,266	Chassagne, P. J	Sept. 8, 1891	469,895	Deavs, C	Mar. 1, 1892
459,705	Greenfield, E. T	Sept. 15, 1891	470,008	Putman, R. C	Mar. 1, 1892
459,872	Tommasi, D	Sept. 22, 1891	470,080	Sisson, H. D	Mar. 1, 1892
460,095	Strom, O	Sept. 22, 1891	471,732	Goehst, J. H	Mar. 29, 1892
460,968	Holmes, O. B. and Gale, G. F	Oct. 13, 1891	471,990	Daily, J. W	Mar. 29, 1892
462,444	Meech, H. B	Nov. 3, 1891	472,611	Stanley, L. T	Apr. 12, 1892
462,571	Mneller, E. T	Nov. 3, 1891	473,661	Fitz-Gerald, J	Apr. 26, 1892
463,770	Rice, E. W., jr	Nov. 24, 1891	474,003	Dills, E	May 3, 1892
465,939	Baker, J. and Graham, H. S	Dec. 15, 1891	475,286	Moore, J. B	May 17, 1892

## 176. ELECTRIC LIGHTING.—98. LIGHTS—SOCKETS AND KEYS.

455,559	Ball, H. P	July 7, 1891	466,052	Kimball, J. L	Dec. 29, 1891
456,327	Smith, W. F	July 21, 1891	466,288	Hinds, J. L	Dec. 29, 1891
457,072	Bryant, W. C	Aug. 4, 1891	466,289	Hinds, J. L	Dec. 29, 1891
457,109	Criggal, J	Aug. 4, 1891	466,290	Hinds, J. L	Dec. 29, 1891
457,151	Flagg, I. J	Aug. 4, 1891	466,510	Painter, G. E	Jan. 5, 1892
458,242	Swift, H. E	Aug. 25, 1891	466,511	Painter, G. E	Jan. 5, 1892
459,038	Greenfield, E. T	Sept. 8, 1891	467,716	Dunn, P	Jan. 26, 1892
459,514	Phillips, J. O	Sept. 15, 1891	467,958	Silvey, W. L	Feb. 2, 1892
461,706	McCutcheon, W. J., jr	Oct. 20, 1891	467,983	Piffard, D. H	Feb. 2, 1892
461,898	Poole, C. P	Oct. 27, 1891	470,402	Ries, E. E. and Horry, W. S	Mar. 8, 1892
462,574	McCutcheon, W. J., jr	Nov. 3, 1891	471,645	Klein, C. J	Mar. 29, 1892
462,677	Fay, T. J	Nov. 3, 1891	472,801	Baillard, G. C	Apr. 12, 1892
463,763	Voight, F	Nov. 24, 1891	474,800	Baillard, G. C	Apr. 12, 1892

## 176. ELECTRIC LIGHTING.—98. LIGHTS—SOCKETS AND KEYS—Continued.

No.	NAME.	DATE.	No.	NAME.	DATE.
473,373	Arnold, C. R. -----	Apr. 19, 1892	475,555	Halvorson, C. A. B. -----	May 24, 1892
474,541	Willing, C. A. P. and Violet, R. J. G. -----	May 10, 1892	477,146	Painter, G. E. -----	June 14, 1892
474,826	Gutmann, H. J. -----	May 17, 1892	477,407	Gibbs, J. S. -----	June 21, 1892
475,345	Rockwood, F. C. -----	May 24, 1892	477,786	Smith, E. L. and Foster, G. C. H. -----	June 28, 1892

## 176. ELECTRIC LIGHTING.—19. SYSTEMS.

456,865	Tyler, J. W. -----	July 28, 1891	468,500	Görge, J. F. H. -----	Feb. 9, 1892
457,374	Sedlmeyer, J. H. -----	Aug. 11, 1891	469,253	Johnston, A. L. -----	Feb. 23, 1892
458,666	Short, S. H. -----	Sept. 1, 1891	469,652	Jeunings, W. C. -----	Feb. 23, 1892
459,721	Froloff, N. and Snobotin, W. -----	Sept. 15, 1891	470,382	Kerstein, M. -----	Mar. 8, 1892
459,839	Johnston, A. L. -----	Sept. 22, 1891	470,722	Tregoning, E. -----	Mar. 15, 1892
459,840	Johnston, A. L. -----	Sept. 22, 1891	472,034	Thum, M. -----	Apr. 5, 1892
460,199	Cushing, J. P. and Kelly, W. J. -----	Sept. 29, 1891	472,346	Foster, H. A. -----	Apr. 5, 1892
460,364	Rice, E. W., jr. -----	Sept. 29, 1891	472,623	Lockwood, J. M. -----	Apr. 12, 1892
461,791	Bergmann, S. -----	Oct. 20, 1891	472,784	Brown, C. D. -----	Apr. 12, 1892
463,086	Waterhouse, A. G. -----	Nov. 10, 1891	473,594	Thum, M. -----	Apr. 26, 1892
463,793	Hodgson, E. J. and Stearns, J. W. -----	Nov. 24, 1891	473,932	Kintner, C. J. -----	May 3, 1892
463,867	Morgan, R. A. and Bosson, G. C., jr. -----	Nov. 24, 1891	474,037	Anderson, J. M. -----	May 3, 1892
465,594	La Roche, F. A. -----	Dec. 22, 1891	474,632	Fehr, L. A. -----	May 10, 1892
465,805	Smith, T. C. and Acker, B. D. -----	Dec. 22, 1891	474,667	Kurz, W. D. and Anderson, H. -----	May 10, 1892
465,981	Champion, P. C. E. -----	Dec. 24, 1891	475,538	Cowgill, M. J. -----	May 24, 1892
468,099	Leonard, H. W. -----	Feb. 2, 1892	475,645	Waterhouse, A. G. -----	May 24, 1892
468,122	Thomson, E. -----	Feb. 2, 1892	476,422	Sechrist, A. -----	June 7, 1892
468,123	Thomson, E. and Rice, E. W. -----	Feb. 2, 1892	476,527	Edison, T. A. -----	June 7, 1892
468,185	Webster, L. J. -----	Feb. 2, 1892	476,531	Edison, T. A. -----	June 7, 1892
468,487	Trippe, S. L. -----	Feb. 9, 1892	476,544	Leonard, H. W. -----	June 7, 1892

## 176. ELECTRIC LIGHTING.—166. SYSTEMS—AUTOMATIC REGULATION.

461,569	Dobbie, R. S. -----	Oct. 20, 1891
---------	---------------------	---------------

## 176. ELECTRIC LIGHTING.—129. SYSTEMS—CAR.

462,311	Garland, F. M. -----	Nov. 3, 1891	469,873	Scribner, C. E. and Warner, E. P. -----	Mar. 1, 1892
469,656	McElroy, J. F. -----	Feb. 23, 1892	475,514	McElroy, J. F. -----	May 24, 1892

## 176. ELECTRIC LIGHTING.—167. SYSTEMS—HAND REGULATION.

466,245	Kelly, W. J. -----	Dec. 29, 1891	474,960	Hutchinson, J. and Herrick, A. B. -----	May 17, 1892
---------	--------------------	---------------	---------	---	--------------

## 176. ELECTRIC LIGHTING.—130. SYSTEMS—SECONDARY BATTERY.

462,237	Conklin, J. I. -----	Nov. 3, 1891
---------	----------------------	--------------

## 176. ELECTRIC LIGHTING.—131. SYSTEMS—TEST.

458,961	Smith, P. C. -----	Sept. 1, 1891	476,317	Rudd, C. H. -----	June 7, 1892
476,156	Manwaren, A. H. -----	May 31, 1892	476,490	Rudd, C. H. -----	June 7, 1892

## 177. ELECTRIC SIGNALING.—1. ALARMS.

455,446	White, W. H. -----	July 7, 1891	465,548	White, W. H. -----	Dec. 22, 1891
456,667	Adams, W. G. -----	July 28, 1891	467,073	Zahner, F. J. -----	Jan. 12, 1892
457,296	Wilson, D. H. -----	Aug. 4, 1891	467,774	Reuter, C. and Bollmann, G. -----	Jan. 26, 1892
459,442	Garrett, H. -----	Sept. 15, 1891	468,970	Briggs, F. H. -----	Feb. 16, 1892
460,895	Smith, H. P. -----	Oct. 6, 1891	469,349	Kubler, E. G. -----	Feb. 23, 1892
461,104	Mettler, E. G. -----	Oct. 13, 1891	469,424	McConnell, A. C. -----	Feb. 23, 1892
461,178	Beckers, M. -----	Oct. 13, 1891	470,752	Fowler, W. -----	Mar. 15, 1892
463,001	Smith, J. B. -----	Nov. 10, 1891	471,311	Kerekes, P. -----	Mar. 22, 1892
465,278	Lawler, J. J. -----	Dec. 15, 1891	477,950	Mathews, S. M. -----	June 28, 1892

## 177. ELECTRIC SIGNALING.—2. ALARMS—BURGLAR.

No.	NAME.	DATE.	No.	NAME.	DATE.
459,984	Wilson, H. T -----	Sept. 22, 1891	474,980	Vassar, R. S -----	May 17, 1892
460,019	Kruschke, R. C -----	Sept. 22, 1891	477,301	Hale, P. and Sparks, C. H -----	June 21, 1892
465,602	Thomson, W. C -----	Dec. 22, 1891	477,712	Stromberg, A -----	June 28, 1892
469,266	Page, F. C -----	Feb. 23, 1892	477,940	Hurd, J. F -----	June 28, 1892

## 177. ELECTRIC SIGNALING.—3. ANNUNCIATORS.

455,816	Garl, M -----	July 7, 1891	467,985	Bacorn, F. W -----	Feb. 2, 1892
456,803	Dillman, W. C -----	July 28, 1891	468,170	Ebert, W -----	Feb. 2, 1892
458,947	Dillman, W. C -----	Sept. 1, 1891	471,686	Perry, W. H -----	Mar. 29, 1892
462,834	Armstrong, C. G -----	Nov. 10, 1891	473,975	Steeg, F. W -----	May 3, 1892
466,870	Heineman, D -----	Jan. 12, 1892			

## 177. ELECTRIC SIGNALING.—139. ANNUNCIATORS—DROP.

459,615	Ritchie, F -----	Sept. 15, 1891	472,439	Dillman, W. C -----	Apr. 5, 1892
461,748	Fouts, L. F -----	Oct. 20, 1891	472,440	Dillman, W. C -----	Apr. 5, 1892
466,063	Colville, F. C -----	Dec. 29, 1891	473,121	Lane, T. W -----	Apr. 19, 1892
466,159	Dillman, W. C -----	Dec. 29, 1891	477,071	Rowand, L. S -----	June 14, 1892
466,357	Molitor, C -----	Jan. 5, 1892	477,616	Warner, J. C -----	June 21, 1892

## 177. ELECTRIC SIGNALING.—157. ANNUNCIATORS—DROP SYSTEMS.

469,995	Dunbar, F. W -----	Mar. 1, 1892	474,907	Greene, G. P -----	May 10, 1892
471,987	Watson, N. M -----	Mar. 29, 1892			

## 177. ELECTRIC SIGNALING.—140. ANNUNCIATORS—STEP-BY-STEP.

471,986	Watson, N. M -----	Mar. 29, 1892	476,334	Ulman, M -----	June 7, 1892
473,174	Haight, H. J -----	Apr. 19, 1892			

## 177. ELECTRIC SIGNALING.—158. ANNUNCIATORS—TIME.

466,784	Harte, W. F -----	Jan. 12, 1892	474,835	Jones, J. and Jones, J., jr -----	May 17, 1892
467,651	Delany, P. B -----	Jan. 26, 1892			

## 177. ELECTRIC SIGNALING.—7. BELLS.

460,503	Hay, W -----	Sept. 29, 1891	475,783	Manger, F. W. and Huebel, O. H -----	May 31, 1892
461,718	Slater, W. W. and Barnes, H. C -----	Oct. 20, 1891	476,463	Hunter, J. H -----	June 7, 1892
462,331	Hale, C. A -----	Nov. 3, 1891	476,845	Varley, R., jr -----	June 14, 1892
465,909	Winters, F. M -----	Dec. 29, 1891			

## 177. ELECTRIC SIGNALING.—26. INDICATORS.

456,006	Snedden, W. T -----	July 14, 1891	467,102	Huber, E. and Kneupper, F. G -----	Jan. 12, 1892
456,098	Tietjen, G. H -----	July 14, 1891	467,505	Haight, H. J -----	Jan. 26, 1892
457,454	McCann, W. R. and Creider, S. S -----	Aug. 11, 1891	468,597	Deul, M. A -----	Feb. 9, 1892
459,323	Wenste, C -----	Sept. 8, 1891	470,793	Sellner, L -----	Mar. 15, 1892
462,335	Armstrong, C. G -----	Nov. 10, 1891	474,001	Dean, J. H -----	May 3, 1892
463,491	Cutler, J. L -----	Nov. 17, 1891	474,523	Gibboney, J. W -----	May 10, 1892
464,513	Molyneux, B. S -----	Dec. 8, 1891	475,066	Ricketson, J. C -----	May 17, 1892

## 177. ELECTRIC SIGNALING.—159. INDICATORS—STATION.

463,072	Nelson, J. M -----	Nov. 10, 1891	467,884	Ayres, R. B -----	Jan. 26, 1892
467,678	Ayres, R. B -----	Jan. 26, 1892	475,378	Ayres, R. B -----	May 24, 1892



## 177. ELECTRIC SIGNALING.—38. RAILWAY.

No.	NAME.	DATE.	No.	NAME.	DATE.
456,886	Newcomb, W.-----	July 28, 1891	461,657	Weisser, T.-----	Oct. 20, 1891
457,565	Putnam, T. A. B.-----	Aug. 11, 1891	463,691	Samuels, E. J. and Behrendt, F. E.-----	Nov. 24, 1891
457,855	Munger, L. I.-----	Aug. 18, 1891	470,923	Edison, T. A.-----	Mar. 15, 1892
458,489	Ramsey, J., jr., Harden, E. W. and Wilder, C. M.-----	Aug. 25, 1891	472,500	Henderson, J. W.-----	Apr. 5, 1892
			474,528	Patenall, T. H.-----	May 10, 1892

## 177. ELECTRIC SIGNALING.—147. RAILWAY—BLOCK.

462,513	Stewart, J. B.-----	Nov. 3, 1891	476,240	Benjamin, F. P.-----	June 7, 1892
---------	---------------------	--------------	---------	----------------------	--------------

## 177. ELECTRIC SIGNALING.—146. RAILWAY—BLOCK SYSTEMS.

460,771	Coombes, D. C. and Rowe, W.-----	Oct. 6, 1891	472,359	Jaggard, R. W.-----	Apr. 5, 1892
464,490	Buzzell, C. E.-----	Dec. 8, 1891	473,190	Jackson, U. S.-----	Apr. 19, 1892
468,787	Cheaney, F. A.-----	Feb. 16, 1892	475,955	Watson, W. S.-----	May 31, 1892
471,525	Carlton, J. J. and Johnston, H. L.-----	Mar. 22, 1892			

## 177. ELECTRIC SIGNALING.—148. RAILWAY—CAB.

461,518	Barrett, C. T.-----	Oct. 20, 1891	464,587	Phillips, W. H.-----	Dec. 8, 1891,
461,809	Benjamin, F. P.-----	Oct. 27, 1891	471,296	Turney, E. T.-----	Mar. 22, 1892
461,810	Benjamin, F. P.-----	Oct. 27, 1891	473,288	Brosington, J. M.-----	Apr. 19, 1892

## 177. ELECTRIC SIGNALING.—149. RAILWAY—CAB, SECTIONAL RAIL.

457,135	Scrrell, W. C.-----	Aug. 4, 1891	461,760	La Burt, J.-----	Oct. 20, 1891
459,456	Haynes, D. J. and Allen, O.-----	Sept. 15, 1891	464,979	Miller, G. E.-----	Dec. 15, 1891
459,633	Hocstmann, H. C.-----	Sept. 15, 1891	470,129	Holloway, W., jr.-----	Mar. 1, 1892
460,525	Dessant, W. F. Z.-----	Sept. 20, 1891	470,806	Kinsman, F. E.-----	Mar. 15, 1892
460,779	De Jaeger, S. and Zoutman, A.-----	Oct. 6, 1891	473,614	Corporan, C. E.-----	Apr. 26, 1892
460,864	Hadley, E. W.-----	Oct. 6, 1891			

## 177. ELECTRIC SIGNALING.—150. RAILWAY—SECTIONAL RAIL.

460,524	Dessant, W. F. Z.-----	Sept. 20, 1891	470,813	Wilson, A. J.-----	Mar. 15, 1892
467,478	Dessant, W. F. Z.-----	Jan. 19, 1892	471,409	Wilson, A. J.-----	Mar. 22, 1892
467,581	Myers, F. I.-----	Jan. 26, 1892	471,410	Wilson, A. J.-----	Mar. 22, 1892
469,438	Myers, F. I.-----	Feb. 23, 1892			

## 177. ELECTRIC SIGNALING.—151. RAILWAY—TRACK INSTRUMENTS.

457,058	Parrish, M. W.-----	Aug. 4, 1891	466,519	White, H. P.-----	Jan. 5, 1892
462,850	Patenall, T. H.-----	Nov. 10, 1891	471,230	Wiley, E. C.-----	Mar. 22, 1892
464,655	Parrish, H. A.-----	Dec. 8, 1891			

## 178. TELEGRAPHY.—46. AUTOMATIC.

457,816	Kunhardt, D.-----	Aug. 18, 1891	461,471	Gray, E.-----	Oct. 20, 1891
460,109	Burke, C. G.-----	Sept. 29, 1891	461,472	Gray, E.-----	Oct. 20, 1891
460,619	Wood, A.-----	Oct. 6, 1891	461,473	Gray, E.-----	Oct. 20, 1891
461,152	Soblik, M.-----	Oct. 13, 1891	461,474	Gray, E.-----	Oct. 20, 1891
461,470	Gray, E.-----	Oct. 20, 1891	475,925	Burgher, C.-----	May 31, 1892

## 178. TELEGRAPHY.—10. CIRCUIT CLOSERS.

458,343	Richards, P. D.-----	Aug. 25, 1891	470,372	Delano, C. H.-----	Mar. 8, 1892
459,605	Wollensak, J. F.-----	Sept. 15, 1891	470,596	Price, G. W.-----	Mar. 8, 1892
460,416	White, J. E.-----	Sept. 29, 1891	470,994	Draper, D.-----	Mar. 15, 1892
466,644	Wollensak, J. F.-----	Jan. 5, 1892	473,479	Delano, C. H.-----	Apr. 26, 1892
467,875	Lungen, A.-----	Jan. 26, 1892	473,717	Varley, R., jr.-----	Apr. 26, 1892
469,181	Pinkham, C. A.-----	Feb. 16, 1892			

## 178. TELEGRAPHY.—128. CIRCUIT-CLOSERS—THERMAL.

No.	NAME.	DATE.	No.	NAME.	DATE.
455,813	Chase, H. A. and Eaton, H. F.	July 14, 1891	474,140	Morse, A. B.	May 3, 1892
463,298	Wrigley, J. and Chambers, G. P.	Nov. 17, 1891	474,149	Rowand, L. G.	May 3, 1892
465,829	Browne, H. M.	Dec. 29, 1891	474,542	Brintnell, A. H.	May 10, 1892
466,865	Pierce, M. S., Desisle, L. H. and Oliver, O. C.	Jan. 12, 1892	474,673	Meyer, J.	May 10, 1892
471,130	Martin, M.	Mar. 22, 1892	475,340	Palmer, F. S. and Desile, L. H.	May 24, 1892
472,688	Bockhaus, A.	Apr. 12, 1892	477,315	Tapley, W. H.	June 21, 1892

## 178. TELEGRAPHY.—45. CIRCUITS AND SYSTEMS.

458,585	Kunhardt, D.	Sept. 1, 1891	468,755	Wentz, W. F.	Feb. 9, 1892
459,448	Sloan, W. E., Hughes, J. E. and Reed, O. S.	Sept. 15, 1891	469,856	Hurd, J. B.	Mar. 1, 1892
462,720	Miller, K. V.	Nov. 10, 1891	475,468	Non, F. E.	May 24, 1892
465,971	Edison, T. A.	Dec. 29, 1891	475,938	Gathorpe, T.	May 31, 1892
466,492	Facer, W. E.	Jan. 5, 1892	476,618	Dunbar, F. W.	June 7, 1892
			477,835	Davies, C. L.	June 28, 1892

## 178. TELEGRAPHY.—12. CONDENSERS.

464,667	Tesla, N.	Dec. 8, 1891
---------	-----------	--------------

## 178. TELEGRAPHY.—47. DIAL.

469,273	Robinson, J.	Feb. 23, 1892
---------	--------------	---------------

## 178. TELEGRAPHY.—48. DUPLEX.

459,930	Ghegan, J. J.	Sept. 22, 1891
---------	---------------	----------------

## 178. TELEGRAPHY.—103. FIRE—ALARMS AND EXTINGUISHERS.

455,788	Chase, H. A.	July 14, 1891	461,089	Wolstencroft, J. and Soley, W. H.	Oct. 13, 1891
459,013	Martin, M.	Sept. 8, 1891	461,371	Shaffer, W. C.	Oct. 13, 1891
460,287	Shaffer, W. C.	Sept. 29, 1891	470,231	Amet, E. H.	Mar. 8, 1892
460,464	Cook, W. S. and M. C., and Morrow, A. H.	Sept. 29, 1891	474,670	Martin, M.	May 15, 1892
461,087	Soley, W. H.	Oct. 13, 1891	477,214	Knowles, S., jr.	June 21, 1892

## 178. TELEGRAPHY.—50. FIRE.

455,812	Chase, H. A. and Eaton, H. F.	July 14, 1891	465,990	Chase, H. A.	Dec. 29, 1891
455,873	Eaton, H. F.	July 14, 1891	465,991	Cole, F. W.	Dec. 29, 1891
460,757	Wilder, E. R.	Oct. 6, 1891	466,053	Noyes, B. J.	Dec. 29, 1891
461,194	Stoner, J. W.	Oct. 13, 1891	466,306	Jacobs, H. E.	Dec. 29, 1891
461,464	Wood, F. B.	Oct. 20, 1891	466,604	Gaynor, T. F.	Jan. 5, 1892
462,345	Wood, F. B.	Nov. 3, 1891	469,376	Redding, H.	Feb. 23, 1892
462,741	Rolfe, C. A.	Nov. 10, 1891	470,666	Firman, L. B.	Mar. 15, 1892
462,785	Wilder, E. R.	Nov. 10, 1891	470,667	Firman, L. B.	Mar. 15, 1892
462,786	Wilder, E. R.	Nov. 10, 1891	473,024	Selden, C.	Apr. 19, 1892
462,808	Cregier, N. B.	Nov. 10, 1891	474,852	Noyes, B. J.	May 17, 1892
463,570	Bitchet, A. and Whitney, R. W.	Nov. 17, 1891	474,853	Noyes, B. J.	May 17, 1892
465,987	Chase, H. A.	Dec. 29, 1891			

## 178. TELEGRAPHY.—160. FIRE—AUTOMATIC.

459,591	McMahon, J. P.	Sept. 15, 1891	471,929	Woolley, L. G.	Mar. 29, 1892
463,608	Brown, A. W.	Nov. 17, 1891	477,049	Rowand, L. S.	June 14, 1892
464,510	Martin, M.	Dec. 8, 1891	477,068	Rowand, L. S.	June 14, 1892
466,505	Morse, J. S.	Jan. 5, 1892	477,069	Rowand, L. S.	June 14, 1892
470,478	Day, W. G.	Mar. 8, 1892	477,070	Rowand, L. S.	June 14, 1892
470,331	Brintnell, A. H.	Mar. 15, 1892			

## 178. TELEGRAPHY.—162. FIRE—ENGINE HOUSE APPARATUS.

No.	NAME.	DATE.	No.	NAME.	DATE.
471,947	Callahan, F. C -----				Mar. 29, 1892

## 178. TELEGRAPHY.—163. FIRE—NON-INTERFERING.

461,169	Loomis, F. F -----	Oct. 13, 1891	469,745	Loomis, F. F -----	Mar. 1, 1892
---------	--------------------	---------------	---------	--------------------	--------------

## 178. TELEGRAPHY.—165. FIRE—REPEATERS.

463,340	Stevens, G. M -----	Nov. 17, 1891	468,473	Crane, M. G. and Cole, F. W --	Feb. 9, 1892
---------	---------------------	---------------	---------	--------------------------------	--------------

## 178. TELEGRAPHY.—164. FIRE—VARIABLE SIGNAL.

468,107	Eaton, H. F -----	Feb. 2, 1892	468,108	Hunt, C. W -----	Feb. 2, 1892
---------	-------------------	--------------	---------	------------------	--------------

## 178. TELEGRAPHY.—161. FIRE—VARIABLE SIGNAL, DIAL.

466,620	Nash, C. E -----	Jan. 5, 1892	472,983	Chase, H. A -----	Apr. 19, 1892
471,534	Chase, H. A -----	Mar. 29, 1892	474,945	Chase, H. A -----	May 17, 1892

## 178. TELEGRAPHY.—29. KEYS.

455,320	Green, R. W -----	July 7, 1891	464,897	Robare, L. F -----	Dec. 8, 1891
456,110	Brown, J. W -----	July 14, 1891			

## 178. TELEGRAPHY.—30. LIGHTNING ARRESTERS.

455,955	Van Nuis, C. S. and Vail, J. H.	July 14, 1891	470,772	Wurts, A. -----	Mar. 15, 1892
460,289	Wood, J. J -----	Sept. 29, 1891	470,773	Wurts, A. -----	Mar. 15, 1892
461,991	Van Brunt, E. W. and Raynor, W. M.	Oct. 27, 1891	470,774	Wurts, A. -----	Mar. 15, 1892
463,761	Thomson, E -----	Nov. 24, 1891	472,135	Miller, E. G -----	Apr. 5, 1892
464,595	Thomson, E -----	Dec. 8, 1891	473,045	Wood, M. M -----	Apr. 19, 1892
465,958	Wurts, A -----	Dec. 29, 1891	473,514	Lemp, H -----	Apr. 26, 1892
468,120	Thomson, E -----	Feb. 2, 1892	474,469	Dickerson, M -----	May 10, 1892
468,497	Thomson, E -----	Feb. 9, 1892	475,482	Browne, J. E. and Tidman, F. H.	May 24, 1892
470,013	Scott, C. F. and Wurts, A -----	Mar. 1, 1892	476,529	Edison, T. A -----	June 7, 1892
470,721	Thomson, E -----	Mar. 15, 1892	476,855	Wurts, A -----	June 14, 1892
470,736	Bacon, G. M -----	Mar. 15, 1892	476,988	Edison, T. A -----	June 14, 1892
			477,656	Haselwander, F -----	June 28, 1892

## 178. TELEGRAPHY.—51. MULTIPLEX.

463,852	Bradley, C. S -----	Nov. 24, 1891	465,832	Cassagnes, G. A -----	Dec. 29, 1891
---------	---------------------	---------------	---------	-----------------------	---------------

## 178. TELEGRAPHY.—35. MORSE REGISTERS.

460,676	Stover, A -----				Oct. 6, 1891
---------	-----------------	--	--	--	--------------

## 178. TELEGRAPHY.—54. PRINTING.

457,239	Van Hoesenbergh, H -----	Aug. 4, 1891	477,635	Blodgett, W. E -----	June 28, 1892
477,383	Reed, C. J -----	June 21, 1892	477,652	Etheridge, H -----	June 28, 1892
477,384	Reed, C. J -----	June 21, 1892	477,665	Linville, S. R. -----	June 28, 1892

## 178. TELEGRAPHY.—141. PRINTING—MULTIPLE WHEEL.

460,349	Cassagnes, G. A -----	Sept. 29, 1891	466,858	Wright, J. E -----	Jan. 12, 1892
---------	-----------------------	----------------	---------	--------------------	---------------



## 178. TELEGRAPHY.—142. PRINTING—WHEEL.

No.	NAME.	DATE.	No.	NAME.	DATE.
460,328	Wright, J. E -----	Sept. 29, 1891	470,768	Silkman, E. J -----	Mar. 15, 1892
460,457	Wright, J. E -----	Sept. 29, 1891	472,237	Van Hoevenbergh, H-----	Apr. 5, 1892
460,572	Farmer, M. G -----	Oct. 6, 1891			

## 178. TELEGRAPHY.—55. QUADRUPLIX.

455,398	Haskins, C. D -----	July 7, 1891	462,901	Jones, F. W -----	Nov. 10, 1891
---------	---------------------	--------------	---------	-------------------	---------------

## 178. TELEGRAPHY.—56. RAILWAY CAR.

455,510	Jordon, L. F -----	July 7, 1891	465,396	Synnestvedt, P -----	Dec. 15, 1891
460,958	Dunn, L. -----	Oct. 13, 1891	465,501	Synnestvedt, P -----	Dec. 22, 1891
462,794	Collier, J. D. and Miller, J. K. P	Nov. 10, 1891	473,832	Dunn, L. -----	Apr. 26, 1892
463,395	Strauss, J. B. -----	Nov. 17, 1891	476,573	Cregier, N. B -----	June 14, 1892

## 178. TELEGRAPHY.—41. RELAYS AND SOUNDERS.

460,110	Burke, C. G -----	Sept. 29, 1891	465,809	Varley, R., jr -----	Dec. 22, 1891
460,111	Burke, C. G -----	Sept. 29, 1891	470,557	Dyer, C. M -----	Mar. 8, 1892
463,207	Weaver, E. E -----	Nov. 17, 1891	474,706	Watkins, R -----	May 10, 1892
463,428	Maret, J. -----	Nov. 17, 1891	475,441	Cuttriss, C. -----	May 24, 1892
464,133	Varley, R., jr -----	Dec. 1, 1891	476,730	Carr, C. B -----	June 7, 1892

## 178. TELEGRAPHY.—42. REPEATERS.

464,001	Atkinson, R. L -----				Dec. 1, 1891
---------	----------------------	--	--	--	--------------

## 179. TELEPHONY.—82. ANTI-INDUCTION DEVICES.

471,310	Gwodeff, E -----	Mar. 22, 1892	477,870	Pollack, S -----	June 28, 1892
---------	------------------	---------------	---------	------------------	---------------

## 179. TELEPHONY.—81. CONDUCTORS—ANTI-INDUCTIVE.

460,606	Vogler, W -----	Oct. 6, 1891	473,267	Sawyer, W. H -----	Apr. 19, 1892
464,643	Zietlow, J. L. W -----	Dec. 8, 1891	473,351	Sawyer, W. H -----	Apr. 19, 1892
469,248	Holman, S. W -----	Feb. 23, 1892	473,352	Sawyer, W. H -----	Apr. 19, 1892
469,475	Hayes, H. V. and Stone, J. S --	Feb. 23, 1892	473,353	Sawyer, W. H -----	Apr. 19, 1892

## 179. TELEPHONY.—57. TELEPHONES—CALLS.

470,786	Gray, S. W -----	Mar. 15, 1892	471,745	Howard, J. H -----	Mar. 29, 1892
---------	------------------	---------------	---------	--------------------	---------------

## 179. TELEPHONY.—144. CALLS—STEP-BY-STEP.

475,334	Moore, W. C -----				May 24, 1892
---------	-------------------	--	--	--	--------------

## 179. TELEPHONY.—58. TELEPHONES—DETAILS.

463,556	Snyder, L. H -----	Nov. 17, 1891	473,256	Hess, E. C -----	Apr. 19, 1892
471,535	Christy, J. A. and Baldwin, E. J	Mar. 29, 1892	475,300	Cook, V. A -----	May 24, 1892
473,229	Hess, E. C -----	Apr. 19, 1892	477,931	Gold, J. S -----	June 28, 1892

## 179. TELEPHONY.—59. TELEPHONES—ELECTRIC.

463,188	Gibboney, J. W -----	Nov. 17, 1891	474,230	Edison, T. A -----	May 3, 1892
463,569	Berliner, E -----	Nov. 17, 1891	474,231	Edison, T. A -----	May 3, 1892
464,152	Eikemeyer, R. -----	Dec. 1, 1891	474,232	Edison, T. A -----	May 3, 1892
464,959	Cuttriss, C. -----	Dec. 15, 1891	476,007	Finch, H -----	May 31, 1892
469,085	Grissinger, E. A. and T. -----	Feb. 16, 1892	476,026	Sherman, S. F -----	May 31, 1892
469,706	Lockwood, W. C -----	Mar. 1, 1892	476,054	Magenis, J. P -----	May 31, 1892
470,634	West, W. A -----	Mar. 8, 1892	476,200	Harrison, E. W -----	May 31, 1892
472,243	Acheson, E. G -----	Apr. 5, 1892	476,582	Vogt, C -----	June 7, 1892
472,806	Henneberg, H. O -----	Apr. 12, 1892			

## 179. TELEPHONY.—60. TELEPHONES—MAGNETIC.

No.	NAME.	DATE.	No.	NAME.	DATE.
458,479	Noriega, E -----	Aug. 25, 1891	476,583	Vogt, C -----	June 7, 1892
468,246	Grissinger, E. A -----	Feb. 2, 1892	477,866	Jones, R. H -----	June 28, 1892
474,214	Collier, A. T -----	May 3, 1892			

## 179. TELEPHONY.—100. TELEPHONES—SUPPORTS.

455,722	Myers, W. J -----	July 7, 1891	469,474	Hayes, H. V -----	Feb. 23, 1892
465,778	Catchell, C. H -----	Dec. 22, 1891	469,782	Goulding, J. C -----	Mar. 1, 1892
467,160	Dent, R -----	Jan. 19, 1892	471,549	Hills, J. E -----	Mar. 29, 1892
467,917	Christy, J. A -----	Feb. 2, 1892			

## 179. TELEPHONY.—85. TELEPHONES—SWITCH-BOARDS.

455,696	Wilson, D. H -----	July 7, 1891	472,947	Goodridge, W. M -----	Apr. 12, 1892
459,711	Scribner, C. E -----	Sept. 15, 1891	473,848	Mayer, J. B -----	Apr. 26, 1892
468,818	Mosely, W -----	Feb. 16, 1892			

## 179. TELEPHONY.—71. TELEPHONES—SWITCHES.

456,817	Hayes, H. V -----	July 28, 1891	459,214	Howard, J. H -----	Sept. 8, 1891
459,205	Howard, J. H -----	Sept. 8, 1891	461,573	Gould, C. C -----	Oct. 20, 1891
459,213	Howard, J. H -----	Sept. 8, 1891			

## 179. TELEPHONY.—64. TELEPHONES—SYSTEMS.

461,887	McKivitt, W. E -----	Oct. 27, 1891	473,532	Taintor, G -----	Apr. 26, 1892
464,519	Patterson, W. R -----	Dec. 8, 1891	473,911	Carty, J. J -----	May 3, 1892
464,529	Stanley, W., jr., and Kelly, J. F -----	Dec. 8, 1891	474,966	Scribner, C. E -----	May 3, 1892
465,648	O'Brien, T. W -----	Dec. 22, 1891	474,067	Scribner, C. E -----	May 3, 1892
468,281	Cann, E -----	Feb. 2, 1892	474,323	Hayes, H. V -----	May 3, 1892
469,865	O'Brien, T. W -----	Mar. 1, 1892	474,854	O'Connell, J. J -----	May 10, 1892
472,772	Secly, J. A. and Scribner, C. E -----	Apr. 12, 1892	476,492	Scribner, C. E -----	June 7, 1892
472,956	Scribner, C. E -----	Apr. 12, 1892	476,826	Secly, J. A -----	June 14, 1892
473,089	Scribner, C. E -----	Apr. 19, 1892	476,793	Goodridge, W. M -----	June 14, 1892

## 179. TELEPHONY.—101. TELEPHONES—SYSTEMS, AUTOMATIC.

457,477	Hayes, H. V. and Sears, H. D -----				Aug. 11, 1891
---------	------------------------------------	--	--	--	---------------

## 179. TELEPHONY.—132. TELEPHONES—SYSTEMS, DETAILS.

458,258	Berthon, L. A -----	Aug. 25, 1891	476,494	Secly, J. A -----	June 7, 1892
---------	---------------------	---------------	---------	-------------------	--------------

## 179. TELEPHONY.—134. TELEPHONES—SYSTEMS, INTERMEDIATE SUB-STATION.

471,352	Ferdinand, A. B -----				Mar. 22, 1892
---------	-----------------------	--	--	--	---------------

## 179. TELEPHONY.—135. TELEPHONES—SYSTEMS, MULTIPLE SWITCH-BOARD.

463,544	Pickernell, F. A -----	Nov. 17, 1891	463,545	Pickernell, F. A -----	Nov. 17, 1891
---------	------------------------	---------------	---------	------------------------	---------------

## 179. TELEPHONY.—137. TELEPHONES—SYSTEMS, MULTIPLE SWITCH-BOARD, TEST.

466,702	Pickernell, F. A -----	Jan. 5, 1892	476,509	Bell, O. A -----	June 7, 1892
467,901	Scribner, C. E -----	Jan. 26, 1892	477,579	Scribner, C. E -----	June 21, 1892
467,902	Scribner, C. E -----	Jan. 26, 1892			

## 191. ELECTRIC RAILWAYS.—1. CONDUCTOR SUPPORTS AND INSULATORS.

No.	NAME.	DATE.	No.	NAME.	DATE.
456,252	Short, S. H.-----	July 21, 1891	466,800	Prewitt, W. Q.-----	Jan. 12, 1892
456,574	Jarboe, W. S., Seibert, W. P. and White, J.-----	July 28, 1891	467,940	Lee, C. T.-----	Feb. 2, 1892
456,600	Seibert, W. P.-----	July 28, 1891	467,942	Lee, C. T.-----	Feb. 2, 1892
457,105	Boynton, E. M.-----	Aug. 4, 1891	468,336	Fiske, J. P. B.-----	Feb. 9, 1892
457,106	Boynton, E. M.-----	Aug. 4, 1891	470,356	Winton, H. D.-----	Mar. 8, 1892
457,660	Newman, N.-----	Aug. 11, 1891	470,417	Andrews, W. S. and Ball, H. P.-----	Mar. 8, 1892
458,427	Palmer, J. H.-----	Aug. 25, 1891	470,844	Blackwell, F. O.-----	Mar. 15, 1892
459,168	Winslow, G. H.-----	Sept. 8, 1891	471,096	Briggs, O. P.-----	Mar. 22, 1892
459,485	Caldwell, R. L.-----	Sept. 15, 1891	471,151	Sperry, E. A.-----	Mar. 22, 1892
459,686	Gerrard, C. L.-----	Sept. 15, 1891	471,491	McTighe, T. J.-----	Mar. 22, 1892
460,634	Fricker, D. T.-----	Oct. 6, 1891	472,220	Luscomb, H. H.-----	Apr. 5, 1892
460,735	Wenks, N., jr.-----	Oct. 6, 1891	472,596	Wood, M. M.-----	Apr. 12, 1892
461,582	Lieb, C. A.-----	Oct. 20, 1891	472,810	Phillipsborn, H. and Reickel, W.-----	Apr. 12, 1892
461,785	Pfousts, L. S.-----	Oct. 20, 1891	472,953	Pickett, F. C.-----	Apr. 12, 1892
462,359	Lieb, C. A.-----	Nov. 3, 1891	473,158	Imeson, T., Tibbetts, L. D. and Kellogg, L. F.-----	Apr. 19, 1892
463,420	Gartland, F. X.-----	Nov. 17, 1891	474,049	Shobe, A. A. and Embley, W.-----	May 3, 1892
463,824	Birdsall, E. T. and Serrell, L. W.-----	Nov. 24, 1891	474,319	Goodrich C. F.-----	May 3, 1892
464,371	Kimble, S. W.-----	Dec. 1, 1891	474,375	Evans, O. F.-----	May 10, 1892
464,411	Adams, T. E.-----	Dec. 1, 1891	474,847	Morgan, E. C.-----	May 17, 1892
465,447	Blackwell, F. O.-----	Dec. 22, 1891	476,192	Elliott, C. B.-----	May 31, 1892
465,886	Pruyn, H. S.-----	Dec. 29, 1891	476,193	Elliott, C. B.-----	May 31, 1892
466,391	Andrews, W. S.-----	Jan. 5, 1892	477,951	Metzer, C. A.-----	June 28, 1892

## 191. ELECTRIC RAILWAYS.—2. ELECTRIC LOCOMOTIVES.

455,298	Bassett, N. C.-----	July 7, 1891	468,128	Blackwell, F. O.-----	Feb. 2, 1892
455,581	Seiberling, J. F.-----	July 7, 1891	468,492	Blackwell, F. O.-----	Feb. 9, 1892
456,253	Short, S. H.-----	July 21, 1891	468,526	Phillips, E. B.-----	Feb. 9, 1892
456,254	Short, S. H.-----	July 21, 1891	468,948	Dey, H. E.-----	Feb. 16, 1892
456,970	Short, S. H.-----	Aug. 4, 1891	469,799	Wilson, T. L.-----	Mar. 1, 1892
457,036	Thomson, E. and Rice, E. W., jr.-----	Aug. 4, 1891	470,516	Sperry, E. A.-----	Mar. 8, 1892
457,102	Bassett, N. C.-----	Aug. 4, 1891	470,627	Hollingsworth, S. P.-----	Mar. 8, 1892
457,357	Mailloux, C. O.-----	Aug. 11, 1891	470,656	Blackwell, F. O.-----	Mar. 15, 1892
457,359	Mailloux, C. O.-----	Aug. 11, 1891	470,817	Blackwell, F. O.-----	Mar. 15, 1892
457,584	Knight, W. H.-----	Sept. 1, 1891	473,365	Short, S. H.-----	Apr. 19, 1892
458,729	Shaw, H. F. and G. F.-----	Sept. 1, 1891	473,368	Short, S. H.-----	Apr. 19, 1892
459,024	Short, S. H.-----	Sept. 8, 1891	473,674	Short, S. H.-----	Apr. 26, 1892
459,690	Short, S. H.-----	Sept. 15, 1891	473,693	Conklin, J. J.-----	Apr. 26, 1892
460,040	Short, S. H.-----	Sept. 22, 1891	474,031	Short, S. H.-----	May 3, 1892
461,223	Willett, G.-----	Oct. 13, 1891	474,328	Mower, S. E.-----	May 3, 1892
462,751	Van Depoele, C. J.-----	Nov. 10, 1891	474,331	Boynton, E. M.-----	May 3, 1892
463,315	Hockett, J. A.-----	Nov. 17, 1891	474,857	Phillips, E. B.-----	May 10, 1892
463,356	Short, S. H.-----	Nov. 17, 1891	474,984	Brown, C. and Melms, G. J.-----	May 10, 1892
463,639	Mower, S. E.-----	Nov. 24, 1891	475,160	Short, S. H.-----	May 17, 1892
464,246	Dewey, M. W.-----	Dec. 1, 1891	475,491	Edison, T. A.-----	May 24, 1892
465,359	Dewey, M. W.-----	Dec. 15, 1891	475,492	Edison, T. A.-----	May 24, 1892
465,592	Evans, O. F.-----	Dec. 22, 1891	475,493	Edison, T. A.-----	May 24, 1892
466,150	Morgan, E. H.-----	Dec. 29, 1891	475,702	Patton, W. H.-----	May 24, 1892
466,539	Kling, P. M.-----	Jan. 5, 1892	475,970	Shawhan, J. F.-----	May 31, 1892
466,832	Phillips, E. B.-----	Jan. 12, 1892	476,437	Adams, T. E.-----	June 7, 1892
466,914	Winkler, C. F.-----	Jan. 12, 1892	476,987	Edison, T. A.-----	June 14, 1892
467,969	Byllesby, H. M.-----	Feb. 2, 1892			

## 191. ELECTRIC RAILWAYS.—3. SYSTEMS.

455,454	Rice, E. W., jr.-----	July 7, 1891	465,432	Green, G. F.-----	Dec. 15, 1891
458,867	Van Depoele, C. J.-----	Sept. 1, 1891	466,101	Kerstein, M.-----	Dec. 29, 1891
463,257	Smith, C.-----	Nov. 17, 1891	467,050	Potter, B. I.-----	Jan. 12, 1892
464,090	Wilder, R. A.-----	Dec. 1, 1891	468,912	Hunter, R. M.-----	Feb. 16, 1892
464,342	Mahana, J. B.-----	Dec. 1, 1891	475,494	Edison, T. A.-----	May 24, 1892
464,955	Büsser, O.-----	Dec. 15, 1891			

## 191. ELECTRIC RAILWAYS.—4. SYSTEMS—BATTERY.

455,545	Egan, C. E.-----	Aug. 25, 1891	464,248	Dewey, M. W.-----	Dec. 1, 1891
460,614	Wightman, M. J.-----	Oct. 6, 1891	464,557	Dixon, L. O.-----	Dec. 8, 1891
460,615	Wightman, M. J.-----	Oct. 6, 1891	471,447	Usher, E. P.-----	Mar. 22, 1892
461,969	Vansize, W. B.-----	Oct. 27, 1891	473,871	Gardner, F.-----	Apr. 26, 1892



## 191. ELECTRIC RAILWAYS.—7. SYSTEMS—CIRCUITS, MULTIPLE ARC.

No.	NAME.	DATE.	No.	NAME.	DATE.
457,240	Wheatley, S. E. and Schlosser, J. W.	Aug. 4, 1891	468,163	Wheless, M.-----	Feb. 2, 1892
457,944	Wheatley, S. E. and Schlosser, J. W.	Aug. 18, 1891	468,164	Wheless, M.-----	Feb. 2, 1892
458,582	Knight, W. H.-----	Sept. 1, 1891	468,165	Wheless, M.-----	Feb. 2, 1892
461,851	Short, S. H.-----	Oct. 27, 1891	468,166	Wheless, M.-----	Feb. 2, 1892
			473,361	Short, S. H.-----	Apr. 19, 1892

## 191. ELECTRIC RAILWAYS.—8. SYSTEMS—CIRCUITS, SERIES.

466,367	Perry, N. W.-----	Jan. 5, 1892	467,897	Perry, N. W.-----	Jan. 26, 1892
466,368	Perry, N. W.-----	Jan. 5, 1892			

## 191. ELECTRIC RAILWAYS.—6. SYSTEMS—CLOSED CONDUIT.

455,956	Wilcox, S. P. and Partello, J. D	July 14, 1891	462,177	Thomas, C. W.-----	Oct. 27, 1891
456,979	Britt, E.-----	Aug. 4, 1891	462,595	Sheldon, J. B. and Murnane, D. J	Nov. 3, 1891
457,778	Heron, W. B.-----	Aug. 18, 1891	463,020	Woods, G. T.-----	Nov. 10, 1891
457,836	Degenhardt, F. E.-----	Aug. 18, 1891	465,613	Applegate, W. H.-----	Dec. 22, 1891
458,619	Degenhardt, F. E.-----	Sept. 1, 1891	466,471	Tatro, C. P.-----	Jan. 5, 1892
458,630	Keller, E. E.-----	Sept. 1, 1891	467,699	Hutchinson, W. B.-----	Jan. 26, 1892
458,866	Van Depoele, C. J.-----	Sept. 1, 1891	468,314	Bates, C. H.-----	Feb. 2, 1892
460,780	Keller, E. E.-----	Oct. 6, 1891	472,447	Fyfe, J. C.-----	Apr. 5, 1892
460,887	Robbins, I.-----	Oct. 6, 1891	476,935	Tatro, C. P.-----	June 14, 1892
461,685	Mansfield, F.-----	Oct. 20, 1891	477,734	Bates, J. W.-----	June 28, 1892
462,014	McNear, G. W.-----	Oct. 27, 1891			

## 191. ELECTRIC RAILWAYS.—5. SYSTEMS—CONDUIT.

455,339	Knight, W. H.-----	July 7, 1891	462,688	Camp, H. C.-----	Nov. 10, 1891
455,340	Knight, W. H.-----	July 7, 1891	463,197	Love, J. C.-----	Nov. 17, 1891
455,341	Knight, W. H.-----	July 7, 1891	464,505	Knight, W. H.-----	Dec. 8, 1891
455,342	Knight, W. H.-----	July 7, 1891	465,844	Emmner, J., jr.-----	Dec. 29, 1891
455,343	Knight, W. H.-----	July 7, 1891	466,362	Osner, W.-----	Jan. 5, 1892
455,447	Bradley, W.-----	July 7, 1891	469,828	Waller, J. E. and Manville, E.	Mar. 1, 1892
455,763	Osner, W.-----	July 14, 1891	470,654	Bentley, E. M.-----	Mar. 15, 1892
456,513	Hunter, R. M.-----	July 21, 1891	470,657	Blackwell, F. O.-----	Mar. 15, 1892
457,882	Smith, M. H.-----	Aug. 11, 1891	471,375	Blackwell, F. O.-----	Mar. 22, 1892
457,786	Hunter, R. M.-----	Aug. 11, 1891	471,543	Goss, W. C.-----	Mar. 29, 1892
457,870	Shoemaker, M.-----	Aug. 18, 1891	472,982	Carll, C. W. and Phillips, J. W.	Apr. 19, 1892
458,583	Knight, W. H.-----	Sept. 1, 1891	474,218	Cosgrove, J. J., jr.-----	May 3, 1892
458,747	Knight, W. H.-----	Sept. 1, 1891	474,355	Baker, C. H.-----	May 10, 1892
458,931	Wright, W. C.-----	Sept. 1, 1891	474,472	Hunter, R. M.-----	May 10, 1892
458,932	Wright, W. C.-----	Sept. 1, 1891	475,107	Grantland, J. W.-----	May 17, 1892
461,548	Bentley, E. M.-----	Oct. 20, 1891	476,128	Carr, W. F. and Ferrin, C. F.	May 31, 1892
461,549	Knight, W. H.-----	Oct. 20, 1891	476,603	Bradley, W.-----	June 7, 1892
462,153	Nesmith, A. D.-----	Oct. 27, 1891	476,776	Barkley, R. W.-----	June 14, 1892
462,331	Bentley, E. M.-----	Nov. 3, 1891	476,989	Edison, T. A.-----	June 14, 1892
462,672	Robertson, A. J.-----	Nov. 3, 1891	478,026	Schweiger, C. T. H.-----	June 28, 1892

## 191. ELECTRIC RAILWAYS.—9. SYSTEMS—CONVERTER.

458,377	Richards, W. S.-----	Aug. 25, 1891	468,949	Edison, T. A.-----	Feb. 16, 1892
458,859	Ries, E. E.-----	Sept. 1, 1891	473,253	Dewey, M. W.-----	Apr. 19, 1892
461,057	Shover, B. R. and Dickson, W. C	Oct. 13, 1891			

## 191. ELECTRIC RAILWAYS.—11. SYSTEMS—OVERHEAD.

456,514	Hunter, R. M.-----	July 21, 1891	462,022	Spaulding, W. C.-----	Oct. 27, 1891
458,063	McKee, C. H.-----	Aug. 18, 1891	463,310	Silver, W. J.-----	Nov. 17, 1891
458,844	Dion, L. O.-----	Sept. 1, 1891	463,715	Conklin, J. I.-----	Nov. 24, 1891
459,737	Bentley, E. M.-----	Sept. 22, 1891	463,760	Sargent, C. E.-----	Nov. 24, 1891
459,753	Jones, R. M.-----	Sept. 22, 1891	463,766	Blackwell, F. O.-----	Nov. 24, 1891
459,815	Hunter, R. M.-----	Sept. 22, 1891	464,129	Jones, R. M.-----	Dec. 1, 1891
460,488	Van Depoele, C. J.-----	Sept. 29, 1891	466,196	Stevens, W. A.-----	Dec. 29, 1891
460,571	Edwards, D. W.-----	Oct. 6, 1891	466,427	Rowell, B. C.-----	Jan. 5, 1892
461,611	Hudson, C. E.-----	Oct. 20, 1891	466,807	Sperry, E. A.-----	Jan. 12, 1892

## 191. ELECTRIC RAILWAYS.—11. SYSTEMS—OVERHEAD—Continued.

No.	NAME.	DATE.	No.	NAME.	DATE.
467,679	Boynton, E. M.-----	Jan. 26, 1892	469,353	Bentley, E. M.-----	Feb. 23, 1892
468,575	Ogden, W. J.-----	Feb. 9, 1892	470,221	Thomson, E.-----	Mar. 8, 1892
468,708	Thomas, C. W.-----	Feb. 9, 1892	473,362	Short, S. H.-----	Apr. 19, 1892
468,959	Sprague, F. J. and O'Shaughnessy, P. F.-----	Feb. 16, 1892	475,504	Hoyt, A. O. and Leffler, P. W.-----	May 24, 1892

## 191. ELECTRIC RAILWAYS.—12. SYSTEMS—OVERHEAD, TROLLEYS.

455,322	Griffiths, J. R.-----	July 7, 1891	463,765	Alton, G. H.-----	Nov. 24, 1891
455,798	Knight, W. H.-----	July 14, 1891	464,370	Kimble, S. W.-----	Dec. 1, 1891
457,015	Short, S. H.-----	Aug. 4, 1891	464,780	Schlosser, T. A.-----	Dec. 8, 1891
457,334	Adams, T. E.-----	Aug. 11, 1891	465,469	Foster, C. S.-----	Dec. 22, 1891
457,356	Lieb, C. A.-----	Aug. 11, 1891	465,806	Sprague, F. J. and O'Shaughnessy, P. F.-----	Dec. 22, 1891
457,377	Short, S. H.-----	Aug. 11, 1891			
457,378	Short, S. H.-----	Aug. 11, 1891	466,981	Kuehnle, J.-----	Jan. 12, 1892
458,620	Degenhardt, F. E.-----	Sept. 1, 1891	467,250	Harding, E. R.-----	Jan. 19, 1892
458,665	Seymour, A. P.-----	Sept. 1, 1891	467,448	Van Depoele, C. J.-----	Jan. 19, 1892
459,588	Lewis, G. E.-----	Sept. 15, 1891	467,583	Simons, L. A. and Roof, G. R.-----	Jan. 26, 1892
459,689	Short, S. H.-----	Sept. 15, 1891	468,779	Beebe, J. W.-----	Feb. 16, 1892
459,848	Wetmore, J. A.-----	Sept. 22, 1891	469,280	Smith, W. S.-----	Feb. 23, 1892
460,163	Smith, F. F.-----	Sept. 29, 1891	469,750	Shepard, S. A. and Lang, F. P.-----	Mar. 1, 1892
460,781	Keller, E. E.-----	Oct. 6, 1891	469,861	Love, J. C.-----	Mar. 1, 1892
460,942	Browne, W. L.-----	Oct. 13, 1891	469,899	Morgan, W. H.-----	Mar. 1, 1892
461,690	Short, S. H.-----	Oct. 20, 1891	471,206	Wood, M. M.-----	Mar. 22, 1892
461,840	Lieb, C. A.-----	Oct. 27, 1891	474,552	Friel, C. E.-----	May 10, 1892
462,219	Hunter, R. M.-----	Oct. 27, 1891	475,467	Newhouse, J. W.-----	May 24, 1892
462,578	Nuttall, R. D.-----	Nov. 3, 1891	476,028	Yeokley, M. A.-----	May 31, 1892
462,707	Hipwood, G.-----	Nov. 10, 1891	476,367	Crane, S. C.-----	June 7, 1892
463,024	Bates, J. W. and Blake, C. E.-----	Nov. 10, 1891	476,985	Edison, T. A.-----	June 14, 1892
463,359	Adams, T. E.-----	Nov. 17, 1891			

## 191. ELECTRIC RAILWAYS.—13. SYSTEMS—TELPHER.

455,796	Hunter, R. M.-----	July 14, 1891	470,428	Hassan, M. W.-----	Mar. 8, 1892
455,871	Van Depoele, C. J.-----	Sept. 1, 1891	471,790	Hassan, M. W.-----	Mar. 29, 1892

## 2. APPAREL.—4. CUTTING.

470,233	Caldwell, H. A.-----				Mar. 8, 1892
---------	----------------------	--	--	--	--------------

## 2. APPAREL.—49. HATS—BRUSHING AND FINISHING.

477,965	Sunis, C.-----				June 28, 1892
---------	----------------	--	--	--	---------------

## 4. BATHS AND CLOSETS.—18. WATER CLOSET ATTACHMENTS.

469,481	Lightbody, C.-----				Feb. 23, 1892
---------	--------------------	--	--	--	---------------

## 15. BRUSHING AND SCRUBBING.—61. BOOT BLACKING MACHINES.

463,164	Morton, F. G.-----				Nov. 17, 1891
---------	--------------------	--	--	--	---------------

## 21. CARRIAGES AND WAGONS.—67. VELOCIPEDES.

464,357	Gibson, M. B.-----				Dec. 1, 1891
---------	--------------------	--	--	--	--------------

## 18. CAOUTCHOUC AND MINOR PLASTICS.—11. INSULATING MATERIALS.

453,551	Marmand, J. L.-----	Aug. 25, 1891	464,369	Kimble, S. W.-----	Dec. 1, 1891
460,765	Thomson, E.-----	Oct. 6, 1891	467,520	Piffard, D. H.-----	Jan. 26, 1892
461,467	Farrar, M. O. and Howe, C. C.-----	Oct. 20, 1891	472,352	Hill, L.-----	Apr. 5, 1892
464,367	Kimble, S. W.-----	Dec. 1, 1891			

## 20. CARPENTRY.—40. WINDOW GUARDS.

No.	NAME.	DATE.	No.	NAME.	DATE.
461,355	Lyons, B -----				Oct. 13, 1891

## 22. METAL FOUNDRY.—16. METAL MOLDS—SOFT METAL MACHINES.

457,879	Madden, A. F -----	Aug. 18, 1891	471,527	Madden, A. F -----	Mar. 22, 1892
---------	--------------------	---------------	---------	--------------------	---------------

## 23. CHEMICALS.—10. METALLOIDS.

461,681	Kautz, J. C -----	Oct. 20, 1891	470,425	Grumbacher, F. M -----	Mar. 8, 1892
---------	-------------------	---------------	---------	------------------------	--------------

## 39. FENCES.—38. RAILWAY GATES—ELECTRIC.

462,403	Gillette, H -----				Nov. 3, 1891
---------	-------------------	--	--	--	--------------

## 39. FENCES.—51. WIRE STRETCHERS—REMOVABLE.

461,109	Ball, H. P -----				Oct. 13, 1891
---------	------------------	--	--	--	---------------

## 40. ADVERTISING.—14. SIGNS.

460,674	Gross, A -----	Oct. 6, 1891	465,516	Berger, O. and Eldridge, H ----	Dec. 22, 1891
---------	----------------	--------------	---------	---------------------------------	---------------

## 41. FINE ARTS.—8. ENGRAVING MACHINES.

461,745	Field, C. H. and Field, C. H., jr-----				Oct. 20, 1891
---------	--	--	--	--	---------------

## 41. FINE ARTS.—17. THEATER APPLIANCES.

471,371	Arthur, J -----				Mar. 22, 1892
---------	-----------------	--	--	--	---------------

## 42. FIREARMS.—25. BALL TRAPS.

469,905	North, P -----				Mar. 1, 1892
---------	----------------	--	--	--	--------------

## 42. FIREARMS.—22. TARGETS.

474,109	Vogel, C -----				May 3, 1892
---------	----------------	--	--	--	-------------

## 46. GAMES AND TOYS.—49. ELECTRIC TOYS.

461,075	Gates, W. L -----	Oct. 13, 1891	468,338	Goodson, G. A -----	Feb. 9, 1892
461,076	Gates, W. L -----	Oct. 13, 1891	470,498	Mader, F. W -----	Mar. 8, 1892
468,274	Goodson, G. A -----	Feb. 2, 1892			

## 46. GAMES AND TOYS.—40. FIGURE TOYS.

455,545	Kibler, J. B -----				July 7, 1891
---------	--------------------	--	--	--	--------------

## 53. HARDWARE MAKING.—8. GAS AND WATER FITTINGS.

459,318	Theilman, W -----				Sept. 8, 1891
---------	-------------------	--	--	--	---------------



## 57. HOISTING.—65. CRANES AND DERRICKS—TRAVELING, DOUBLE TRACK.

No.	NAME.	DATE.	No.	NAME.	DATE.
460,514	Stadelman, W. A				Sept. 29, 1891

## 57. HOISTING.—67. ELEVATED CARRIER.

469,460	Austin, N. E				Feb. 23, 1892
---------	--------------	--	--	--	---------------

## 57. HOISTING.—73. ELEVATED CARRIER—SHEAVE FRAME CATCH.

456,148	Kinney, J. E., Brown, J. H. and Wade, C. G				July 21, 1891
---------	--	--	--	--	---------------

## 58. HOROLOGY.—5. CLOCK STRIKING.

471,210	Dickinson, C. S				Mar. 22, 1892
---------	-----------------	--	--	--	---------------

## 58. HOROLOGY.—28. CLOCKS—ELECTRIC.

455,532	Gregory, F. L	July 7, 1891	461,424	Du Laney, J. W	Oct. 20, 1891
456,325	Haberthur, B	July 21, 1891	465,655	Dudley, W. J	Dec. 22, 1891
457,030	Menus, W. K. and Dudley, W. J	Aug. 4, 1891	466,518	Von Orth, L	Jan. 5, 1892
458,716	Munson, H	Sept. 1, 1891	467,748	Ellis, F. A	Jan. 26, 1892
460,963	Haight, H. J	Oct. 13, 1891	475,809	Schmidt, F. M	May 31, 1892
461,423	Du Laney, J. W. and C. F	Oct. 20, 1891			

## 58. HOROLOGY.—10. METRONOMES.

458,251	Lord, W. K				Aug. 25, 1891
---------	------------	--	--	--	---------------

## 58. HOROLOGY.—11. PENDULUMS.

466,011	Phillips, H				Dec. 29, 1891
---------	-------------	--	--	--	---------------

## 58. HOROLOGY.—15. TIME ALARMS.

455,352	Park, H. S	July 7, 1891	464,730	Lester, C	Dec. 8, 1891
458,178	Lester, C	Aug. 25, 1891	468,414	Burroughs, W. S	Feb. 9, 1892
458,206	Winterholder, L	Aug. 25, 1891	469,802	Jungbauer, J	Mar. 1, 1892
458,372	Newton, J. O	Aug. 25, 1891	472,494	Caughy, J. H	Apr. 5, 1892
459,917	Smith, F. E	Sept. 22, 1891	477,206	Franklin, B	June 21, 1892

## 58. HOROLOGY.—16. TIME CHECKS.

455,410	Newman, A	July 7, 1891	464,256	Redding, H	Dec. 1, 1891
455,440	Lannert, J. A	July 7, 1891	470,810	Lucas, W. and Garrett, T. A	Mar. 15, 1892
461,279	Schiefer, F. W	Oct. 13, 1891	470,821	Gosman, H	Mar. 15, 1892
463,843	McCaskey, J. L	Nov. 24, 1891	475,566	Jardine, C. K	May 24, 1891

## 58. HOROLOGY.—33. TIME SIGNALS.

456,023	Dickover, J. C. and Scott, W				July 14, 1891
---------	------------------------------	--	--	--	---------------

## 61. HYDRAULIC ENGINEERING.—16. TUNNELS.

457,770	Carter, A. G				Aug. 18, 1891
---------	--------------	--	--	--	---------------

## 66. KNITTING AND NETTING.—7. STOPPING.

No.	NAME.	DATE.	No.	NAME.	DATE.
463,562	Wilcomb, F -----	Nov. 17, 1891	477,986	Beyer, A -----	June 28, 1892

## 67. LAMPS AND GAS FITTINGS.—58. DROP LIGHTS—SPRING DRUM.

468,159	Terry, S. M. -----				Feb. 2, 1892
---------	--------------------	--	--	--	--------------

## 67. LAMPS AND GAS FITTINGS.—52. GAS BURNERS—REGENERATIVE.

477,081	Thomas, T. C. J. -----				June 14, 1892
---------	------------------------	--	--	--	---------------

## 67. LAMPS AND GAS FITTINGS.—77. GLOBES.

462,477	Duval, A. and Nelson, H. -----	Nov. 3, 1891	475,698	Meech, H. B. -----	May 24, 1892
466,576	Robbins, C. P. -----	Jan. 5, 1892	476,933	Spencer, W. M. -----	June 14, 1892

## 67. LAMPS AND GAS FITTINGS.—94. GUARDS.

459,749	Hipwell, H. H. -----				Sept. 22, 1891
---------	----------------------	--	--	--	----------------

## 67. LAMPS AND GAS FITTINGS.—78. HARPS AND HANGERS.

458,769	Aldrich, F. H. -----				Sept. 1, 1891
---------	----------------------	--	--	--	---------------

## 67. LAMPS AND GAS FITTINGS.—70. HEAD LIGHTS.

472,721	Ward, B. B. -----				Apr. 12, 1892
---------	-------------------	--	--	--	---------------

## 67. LAMPS AND GAS FITTINGS.—67. SHADE SUPPORTS.

456,997	Levison, W. G. -----	Aug. 4, 1891	473,240	Leavey, G. F. -----	Apr. 19, 1892
465,470	Foster, H. A. -----	Dec. 22, 1891	476,021	Miner, H. A. -----	May 31, 1892

## 67. LAMPS AND GAS FITTINGS.—73. STREET LIGHT HANGERS.

456,859	Shank, C. H. -----	July 28, 1891	469,048	Renchan, J. J. -----	Feb. 16, 1892
463,773	Brady, W. R. -----	Nov. 24, 1891	471,837	Walsh, J. J. -----	Mar. 29, 1892
465,665	Howard, W. K., jr -----	Dec. 22, 1891	471,968	Gallagher, J. -----	Mar. 29, 1892
468,700	Sheldon, J. B. -----	Feb. 9, 1892	476,607	Caldinell, J. H. -----	June 7, 1892

## 70. LOCKS AND LATCHES.—50. ELECTRIC LOCKS.

456,182	Wiley, A. L. -----	July 21, 1891	468,807	Kintner, A. E. -----	Feb. 16, 1892
457,906	Ward, R. J. -----	Aug. 18, 1891	471,913	Thompson, J. G. -----	Mar. 29, 1892
460,391	Hull, W. S. -----	Sept. 29, 1891	473,061	Crockett, C. H. and Allen, C. C. -----	Apr. 19, 1892
461,122	Troy, R. F. -----	Oct. 13, 1891	475,137	Morganthaler, F. -----	May 17, 1892
463,155	Johnson, W. J. O. -----	Nov. 17, 1891	477,897	Hollar, W. H. and Holmes, F. S. -----	June 28, 1892
463,297	Starrett, F. H. -----	Nov. 17, 1891	477,898	Hollar, W. H. and Holmes, F. S. -----	June 28, 1892
467,465	Holmes, F. S. -----	Jan. 19, 1892			

## 72. MASONRY.—20. STONE AND BRICK SETTING.

467,650	Camp, H. B. -----				Jan. 26, 1892
---------	-------------------	--	--	--	---------------



## 73. MEASURING INSTRUMENTS.—DESIGNS.

No.	NAME.	DATE.	No.	NAME.	DATE.
21,445	Weston, E.-----	Apr. 5, 1892	21,446	Weston, E.-----	Apr. 5, 1892

## 73. MEASURING INSTRUMENTS.—10. COIN COUNTERS.

478,011	Mangan, T.-----				June 28, 1892
---------	-----------------	--	--	--	---------------

## 73. MEASURING INSTRUMENTS.—59. FARE REGISTERS.

457,545	Mangan, T. and Buckley, J. P.-----				Aug. 11, 1891
---------	------------------------------------	--	--	--	---------------

## 73. MEASURING INSTRUMENTS.—17. GAME COUNTERS.

457,859	Matterbury, E. D. and Rankin, A. E.	Aug. 18, 1891	466,058	Erickson, C. A.-----	Dec. 29, 1891
---------	-------------------------------------	---------------	---------	----------------------	---------------

## 73. MEASURING INSTRUMENTS.—31. PRESSURE GAGES.

477,853	Barrett, C. T.-----				June 28, 1892
---------	---------------------	--	--	--	---------------

## 73. MEASURING INSTRUMENTS.—34. RECORDERS.

472,124	Jaeger, C. L.-----				Apr. 5, 1892
---------	--------------------	--	--	--	--------------

## 73. MEASURING INSTRUMENTS.—91. RECORDERS—PRESSURE.

459,863	Ayton, C. W.-----				Sept. 22, 1891
---------	-------------------	--	--	--	----------------

## 73. MEASURING INSTRUMENTS.—35. REGISTERS.

468,172	Gilman, W. H.-----	Feb. 2, 1892	475,399	Hoet, C. F.-----	May 24, 1892
472,035	Cushman, C. B. and Canfield, H. G.	Apr. 5, 1892	476,739	Cromer, H. I.-----	June 7, 1892

## 73. MEASURING INSTRUMENTS.—69. SHIP'S LOGS.

473,222	Hall, R. J.-----				Apr. 19, 1892
---------	------------------	--	--	--	---------------

## 73. MEASURING INSTRUMENTS.—43. SPEED MEASURES.

473,341	Phillips, W. A.-----				Apr. 19, 1892
---------	----------------------	--	--	--	---------------

## 73. MEASURING INSTRUMENTS.—47. SQUARES.

456,553	Carr, R. S.-----	July 28, 1891	11,189	Carr, R. S.----- (Reis.)	Sept. 15, 1891
---------	------------------	---------------	--------	--------------------------	----------------

## 73. MEASURING INSTRUMENTS.—85. TELETHERMOMETERS.

474,771	Dibble, F. J.-----				May 10, 1892
---------	--------------------	--	--	--	--------------

## 73. MEASURING INSTRUMENTS.—55. WEATHER VANES.

474,735	Haight, H. J.-----				May 10, 1892
---------	--------------------	--	--	--	--------------

## 74. MACHINE ELEMENTS.—7. GEARING.

458,800	Badger, W. E.-----	Sept. 1, 1891	474,913	Lockwood, G. F.-----	May 17, 1892
469,944	Johnson, E. H.-----	Mar. 1, 1892			

## 74. MACHINE ELEMENTS.—21. GEARING—BELT.

No.	NAME.	DATE.	No.	NAME.	DATE.
470,927	Edison, T. A -----	Mar. 15, 1892	476,986	Edison, T. A -----	June 14, 1892

## 74. MACHINE ELEMENTS.—13. MACHINE BRAKES.

462,348	Chinnoek, C. E -----	Nov. 3, 1891	468,917	Moore, C. E -----	Feb. 16, 1892
---------	----------------------	--------------	---------	-------------------	---------------

## 75. METALLURGY.—34. AMALGAMATORS—ELECTRIC.

460,722	Tanner, W. J -----				Oct. 6, 1891
---------	--------------------	--	--	--	--------------

## 75. METALLURGY.—90. BLOW PIPES.

469,670	Aldrich, T. H -----				Mar. 1, 1892
---------	---------------------	--	--	--	--------------

## 75. METALLURGY.—70. ELECTROLYSIS—ALLOYS.

477,350	Burrowes, E. T -----				June 21, 1892
---------	----------------------	--	--	--	---------------

## 75. METALLURGY.—22. ELECTROLYSIS—BLEACHING.

11,244	Woolf, A. E -----			(Reis.)	June 7, 1892
--------	-------------------	--	--	---------	--------------

## 75. METALLURGY.—162. ELECTROLYSIS—AQUEOUS BATH.

459,556	Watt, A -----	Sept. 15, 1891	473,186	Choate, P. C -----	Apr. 19, 1892
---------	---------------	----------------	---------	--------------------	---------------

## 75. METALLURGY.—5. ELECTROLYSIS—AQUEOUS BATH APPARATUS.

455,451	Le Gueur, E. A -----	July 7, 1891	468,880	Sueur, E. A. L -----	Feb. 16, 1892
465,525	Hayden, E. S -----	Dec. 22, 1891	469,538	Buchanan, A. D -----	Feb. 23, 1892
467,350	Stalman, O -----	Jan. 19, 1892			

## 75. METALLURGY.—7. ELECTROLYSIS—AQUEOUS BATH, CATHODES CLEANING.

472,691	Benjamin, G. H -----				Apr. 1, 1892
---------	----------------------	--	--	--	--------------

## 75. METALLURGY.—15. ELECTROLYSIS—AQUEOUS BATH, ORES.

460,354	Von Siemens, W -----				Sept. 29, 1891
---------	----------------------	--	--	--	----------------

## 75. METALLURGY.—168. ELECTROLYSIS—AQUEOUS BATH, TIN.

477,220	Naef, J. J -----				June 21, 1892
---------	------------------	--	--	--	---------------

## 75. METALLURGY.—169. ELECTROLYSIS—AQUEOUS BATH, ZINC.

475,402	Lange, T -----				May 24, 1892
---------	----------------	--	--	--	--------------

## 75. METALLURGY.—158. ELECTROLYSIS—FUSED BATH.

464,096	Grabau, L -----	Dec. 1, 1891	473,117	Hérault, P -----	Apr. 19, 1892
464,097	Grabau, L -----	Dec. 1, 1891	473,118	Hérault, P -----	Apr. 19, 1892
465,369	Grabau, L -----	Dec. 15, 1891	473,393	Hérault, P. L. T -----	Apr. 19, 1892
466,460	Edison, T. A -----	Jan. 5, 1892	473,866	Bradley, C. S -----	Apr. 26, 1892
468,148	Bradley, C. S -----	Feb. 2, 1892	476,914	Bernard, M. and E -----	June 14, 1892
469,454	Rogers, A. J -----	Feb. 23, 1892			

## 75. METALLURGY.—25. ELECTROLYSIS—PURIFYING LIQUIDS, WATER.

No.	NAME.	DATE.	No.	NAME.	DATE.
459,236	Collins, G. C.-----				Sept. 8, 1891

## 75. METALLURGY.—58. REDUCING AND SEPARATING ALUMINIUM.

464,933	Bradley, C. S.-----				Dec. 8, 1891
---------	---------------------	--	--	--	--------------

## 76. METAL TOOLS AND IMPLEMENTS, MAKING.—24. TOOLS AND IMPLEMENTS.

461,856	Thomson, E.-----				Oct. 27, 1891
---------	------------------	--	--	--	---------------

## 77. METAL BORING AND DRILLING.—2. BORING AND DRILLING APPLIANCES.

464,673	Bradford, H. P.-----				Dec. 8, 1891
---------	----------------------	--	--	--	--------------

## 83. MILLS.—67. AMALGAMATORS—MERCURY.

473,066	Elliott, S. G.-----	Apr. 19, 1892	473,105	Atkins, G. J.-----	Apr. 19, 1892
---------	---------------------	---------------	---------	--------------------	---------------

## 83. MILLS.—49. CHOP GRADERS—ELECTRIC PURIFIERS.

476,991	Edison, T. A.-----				June 14, 1892
---------	--------------------	--	--	--	---------------

## 83. MILLS.—48. DUST COLLECTORS—ROTATING.

470,608	Wardhough, R. E.-----				Mar. 8, 1892
---------	-----------------------	--	--	--	--------------

## 84. MUSIC.—81. ELECTRICAL ACTIONS.

470,294	Feldkamp, F. A.-----	Mar. 8, 1892	474,827	Hale, F. W.-----	May 17, 1892
472,019	Ohmart, E. C.-----	Mar. 29, 1892	478,032	Strand, R. P.-----	June 28, 1892
472,453	Guerne, C. E. and Martin, G. H.	Apr. 5, 1892			

## 88. OPTICS.—2. DISTANCE INSTRUMENTS.

472,617	Fiske, B. A.-----				Apr. 12, 1892
---------	-------------------	--	--	--	---------------

## 88. OPTICS.—7. MAGIC LANTERNS.

457,694	Armstrong, A. W.-----	Aug. 11, 1891	472,912	Spiegel, W. G.-----	Apr. 12, 1892
---------	-----------------------	---------------	---------	---------------------	---------------

## 89. ORDNANCE.—21. ELECTRIC APPLIANCES.

470,942	Markfof, L. M. V.-----				Mar. 15, 1892
---------	------------------------	--	--	--	---------------

## 91. PAINTING.—47. LEAD SALTS.

477,735	Blair, J.-----				June 28, 1892
---------	----------------	--	--	--	---------------

## 93. PAPER MANUFACTURE.—17. FEEDING.

477,352	Cottrell, E. H.-----				June 21, 1892
---------	----------------------	--	--	--	---------------

## 93. PAPER MANUFACTURE.—21. PERFORATING AND LACE PAPER.

No.	NAME.	DATE.	No.	NAME.	DATE.
472,326	Anderson, F. A., L. G. H. and H.-----				Apr. 5, 1892

## 95. PHOTOGRAPHY.—7. CAMERA ATTACHMENT STANDS.

466,818	Wright, C. L.-----				Jan. 12, 1892
---------	--------------------	--	--	--	---------------

## 98. PNEUMATICS.—34. AIR AND GAS PUMPS—ROTARY.

463,585	Snow, W. B.-----				Nov. 17, 1891
---------	------------------	--	--	--	---------------

## 98. PNEUMATICS.—7. CAR VENTILATION.

458,184	Lovejoy, I. A.-----				Aug. 25, 1891
---------	---------------------	--	--	--	---------------

## 98. PNEUMATICS.—37. PNEUMATIC RAILWAYS—DISPATCH TUBES.

460,081	Collins, W. G.-----				Sept. 22, 1891
---------	---------------------	--	--	--	----------------

## 101. PRINTING.—20. HAND STAMPS.

477,627	Carpenter, C. E.-----				June 21, 1892
---------	-----------------------	--	--	--	---------------

## 101. PRINTING.—44. MATRIX MAKING.

457,752	Street, W. W.-----				Aug. 11, 1891
---------	--------------------	--	--	--	---------------

## 101. PRINTING.—30. ROTARY.

468,775	Etheridge, M. V. B.-----				Feb. 9, 1892
---------	--------------------------	--	--	--	--------------

## 102. PROJECTILES.—20. ELECTRIC CARTRIDGES.

459,321	Ward, P. and Gregory, E. M.---	Sept. 8, 1891	466,856	Ward, P. and Gregory, E. M.---	Jan. 12, 1892
---------	--------------------------------	---------------	---------	--------------------------------	---------------

## 102. PROJECTILES.—15. SHELLS.

458,026	Walker, M. F.-----				Aug. 18, 1891
---------	--------------------	--	--	--	---------------

## 104. RAILWAYS.—40. CROSSINGS.

456,484	Samuel, E.-----				July 21, 1891
---------	-----------------	--	--	--	---------------

## 104. RAILWAYS.—10. RAILS.

460,967	Hill, J. T. and Merring, B.-----				Oct. 13, 1891
---------	----------------------------------	--	--	--	---------------

## 104. RAILWAYS.—47. TRACTION—UNDERGROUND.

469,262	Mouson, G. S. and Vogel, C.-----				Feb. 23, 1892
---------	----------------------------------	--	--	--	---------------



## 105. RAILWAY CARS.—20. PLATFORMS.

No.	NAME.	DATE.	No.	NAME.	DATE.
459,170	Farquhar, H. C -----	Sept. 8, 1891	464,253	Peckham, E -----	Dec. 1, 1891

## 105. RAILWAY CARS.—28. STEAM STREET CARS.

11,177	Sperry, E. A ----- (Reis.)	July 7, 1891	457,599	Brill, G. M -----	Aug. 11, 1891
455,842	Smith, F. W., jr., and William- son, S. S.	July 14, 1891	461,293	Van Depoele, C. J -----	Oct. 13, 1891
			461,662	Brill, G. M -----	Oct. 20, 1891

## 105. RAILWAY CARS.—32. TRUCKS.

457,802	Tripp, I. -----	Aug. 11, 1891	474,403	Pfingst, L -----	May 10, 1892
---------	-----------------	---------------	---------	------------------	--------------

## 112. SEWING MACHINES.—24. SPECIAL MACHINES.

460,504	Hunter, R. M -----	Sept. 29, 1891	460,506	Hunter, R. M -----	Sept. 29, 1891
460,505	Hunter, R. M -----	Sept. 29, 1891	460,508	Hunter, R. M -----	Sept. 29, 1891

## 114. SHIPS.—28. IRON.

468,741	Cabell, S. G -----	Feb. 9, 1892
---------	--------------------	--------------

## 114. SHIPS.—43. TURRETS.

474,271	Timby, T. R -----	May 3, 1892
---------	-------------------	-------------

## 115. MARINE PROPULSION.—15. SCREW PROPELLERS—FITTING AND DRIVING.

472,207	Curtis, F. G -----	Apr. 5, 1892
---------	--------------------	--------------

## 116. SIGNALS.—19. PNEUMATIC SIGNALS.

468,697	Schoenberg, R. A -----	Feb. 9, 1892
---------	------------------------	--------------

## 120. STATIONERY.—36. PAPER CLIPS.

477,932	Gold, J. S. and McAlpine, A. H -----	June 28, 1892
---------	--------------------------------------	---------------

## 120. STATIONERY.—21. PEN RACKS AND CLEANERS.

457,759	Coleman, L. H -----	Aug. 11, 1891
---------	---------------------	---------------

## 121. STEAM BOILERS.—11. INDICATORS.

465,767	St. Clair, F -----	Dec. 22, 1891
---------	--------------------	---------------

## 121. STEAM ENGINES.—38. SPEED GOVERNORS—MARINE.

471,725	Wällgren, E. T -----	Mar. 29, 1892	474,169	Hellinger, A -----	May 3, 1892
---------	----------------------	---------------	---------	--------------------	-------------

## 123. AIR AND GAS ENGINES.—3. ENGINES—EXPLOSIVE.

457,459	Connelly, J. S -----	Aug. 11, 1891	464,347	Woolley, L. G -----	Dec. 1, 1891
---------	----------------------	---------------	---------	---------------------	--------------

## 125. STONE WORKING.—10. DRILLS.

No.	NAME.	DATE.	No.	NAME.	DATE.
460,089	Lipe, C. E. ....	Sept. 22, 1891	472,444	Fish, J. ....	Apr. 5, 1892

## 125. STONE WORKING.—14. MINING MACHINES.

458,868	Van Depoele, C. J. ....	Sept. 1, 1891			
---------	-------------------------	---------------	--	--	--

## 126. STOVES AND FURNACES.—14. DAMPERS—AUTOMATIC.

458,091	Stout, J. V. ....	Sept. 8, 1891	474,139	Morse, A. B. ....	May 3, 1892
---------	-------------------	---------------	---------	-------------------	-------------

## 126. STOVES AND FURNACES.—16. DOMESTIC BOILERS.

460,979	Mitchell, W. ....	Oct. 13, 1891			
---------	-------------------	---------------	--	--	--

## 126. STOVES AND FURNACES.—137. WATER HEATING SYSTEMS—STEAM.

471,351	Evans, D. N. ....	Mar. 22, 1892			
---------	-------------------	---------------	--	--	--

## 127. SUGAR AND SALT.—7. DEFECATING.

455,631	Maigert, E. and Sabates, J. ....	July 7, 1891			
---------	----------------------------------	--------------	--	--	--

## 136. STEAM ENGINE VALVES.—11. THROTTLE.

457,837	Kilbourn, W. H. ....	Aug. 18, 1891	469,669	Tirrell, J. P. ....	Feb. 23, 1892
468,753	Tirrell, J. P. ....	Feb. 9, 1892			

## 138. HYDRAULIC MOTORS.—3. ROTARY.

470,095	Atwood, La M. C. ....	Mar. 1, 1892			
---------	-----------------------	--------------	--	--	--

## 139. WEAVING.—54. STOPPING—WEFT STOP MOTIONS.

473,378	Brooks, J. C. ....	Apr. 19, 1892			
---------	--------------------	---------------	--	--	--

## 140. WIRE WORKING.—3. BENDING.

475,261	Winton, H. D. ....	May 17, 1892			
---------	--------------------	--------------	--	--	--

## 140. WIRE WORKING.—24. MACHINES FOR WINDING.

473,123	Lipe, C. E. ....	Apr. 19, 1892			
---------	------------------	---------------	--	--	--

## 154. COMPOSITE ROOFING AND COVERINGS.—4. BOILER COVERINGS.

474,834	Johns, H. W. ....	May 17, 1892	477,647	Christy, B. J. ....	June 28, 1892
---------	-------------------	--------------	---------	---------------------	---------------

## 169. FIRE EXTINGUISHERS.—1. CHEMICAL.

458,134	Steek, E. T. ....	Aug. 18, 1891	465,801	Bradford, C. M. ....	Dec. 22, 1891
---------	-------------------	---------------	---------	----------------------	---------------

## 169. FIRE EXTINGUISHERS.—3. STATIONARY.

No.	NAME.	DATE.	No.	NAME.	DATE.
468,440	Fortier, C. L.-----	Feb. 9, 1892	473,628	Howes, A. P.-----	Apr. 26, 1892

## 181. ACOUSTICS.—2. EAR TRUMPETS.

466,725	Miltimore, A. E.-----				Jan. 5, 1892
---------	-----------------------	--	--	--	--------------

## 181. ACOUSTICS.—4. GRAPHOPHONES.

463,989	Holty, T. H.-----	Nov. 24, 1891	463,990	Holty, T. H.-----	Nov. 24, 1891
---------	-------------------	---------------	---------	-------------------	---------------

## 184. LUBRICATORS.—7. LOOSE PULLEY.

458,785	Driscoll, T.-----	Sept. 1, 1891	463,733	Duncan, W.-----	Nov. 24, 1891
460,232	Hoen, W.-----	Sept. 29, 1891	466,737	Doig, E. M.-----	Jan. 5, 1892

## 184. LUBRICATORS.—8. MISCELLANEOUS.

461,105	McGahan, F. L.-----				Oct. 13, 1891
---------	---------------------	--	--	--	---------------

## 186. STORE SERVICE.—2. PROPULSION.

475,879	Martin, J. C.-----				May 31, 1892
---------	--------------------	--	--	--	--------------

## 187. ELEVATORS.—2. CONTROLLERS.

458,555	Bassett, N. C.-----	Sept. 1, 1891	459,090	Pratt, C. R.-----	Sept. 8, 1891
458,556	Bassett, N. C.-----	Sept. 1, 1891			

## 187. ELEVATORS.—4. HATCHWAYS.

472,479	Hagen, A. A.-----	Apr. 5, 1892	476,388	Judson, C. N.-----	June 7, 1892
---------	-------------------	--------------	---------	--------------------	--------------

## 187. ELEVATORS.—8. SAFETY DEVICES.

477,730	Wright, B.-----				June 28, 1892
---------	-----------------	--	--	--	---------------

## 192. CLUTCHES.—5. LEVER SHOE.

457,446	Van Benthuyzen, F.-----				Aug. 11, 1891
---------	-------------------------	--	--	--	---------------

## 192. CLUTCHES.—9. LONGITUDINAL—MOVABLE WITH PROJECTION.

456,827	Johnson, W. H.-----				July 28, 1891
---------	---------------------	--	--	--	---------------

## 193. CONVEYORS.—4. ENDLESS BELT.

474,592	Edison, T. A.-----				May 10, 1892
---------	--------------------	--	--	--	--------------

## 194. COIN-CONTROLLED APPARATUS.—2. ARTICLE DELIVERY—OSCILLATORY.

464,067	Foster, M. H.-----				Dec. 1, 1891
---------	--------------------	--	--	--	--------------

## 194. COIN-CONTROLLED APPARATUS.—3. ARTICLE DELIVERY—ROTARY.

No.	NAME.	DATE.	No.	NAME.	DATE.
471,053	Henry, A. J				Mar. 15, 1892

## 194. COIN-CONTROLLED APPARATUS.—14. INDUCTION COILS.

456,718	Brooks, L. L	July 23, 1891	475,527	Wickham, H	May 24, 1892
468,955	Mason, J	Feb. 16, 1892			

## 194. COIN-CONTROLLED APPARATUS.—16. MISCELLANEOUS.

462,813	Gray, W				Nov. 10, 1891
---------	---------	--	--	--	---------------

## 194. COIN-CONTROLLED APPARATUS.—17. PHONOGRAPHS.

472,417	Wilson, E. L				Apr. 5, 1892
---------	--------------	--	--	--	--------------

## 194. COIN-CONTROLLED APPARATUS.—18. PHOTOGRAPHIC.

456,673	Martain, F				July 23, 1891
---------	------------	--	--	--	---------------

## 194. COIN-CONTROLLED APPARATUS.—25. TELEPHONES.

469,649	Gray, W	Feb. 23, 1892	472,169	Kato, J. J. and Rhodes, T. H	Apr. 5, 1892
469,650	Gray, W	Feb. 23, 1892	476,887	Marinowitch, B. and Szawady, G	June 14, 1892

## 194. COIN-CONTROLLED APPARATUS.—23. WEIGHING.

477,613	Sundh, A				June 21, 1892
---------	----------	--	--	--	---------------

## 194. COIN-CONTROLLED APPARATUS.—24. WEIGHING RECORDERS.

458,815	Strubler, C. G.				Sept. 1, 1891
---------	-----------------	--	--	--	---------------

## 197. TYPE-WRITING MACHINES.—6. ELECTRICAL.

473,236	Reed, C. J.	Apr. 19, 1892	473,237	Reed, C. J.	Apr. 19, 1892
---------	-------------	---------------	---------	-------------	---------------

## 200. TOWERS.—2. SKELETON.

468,186	Beardsley, C. A	Feb. 2, 1892	471,759	Huntress, J. H.	Mar. 29, 1892
---------	-----------------	--------------	---------	-----------------	---------------

## 200. TOWERS.—3. TELEGRAPH POLES.

456,683	Verstraete, E	July 28, 1891	464,298	Ellison, R.	Dec. 1, 1891
459,844	Thomas, V. A	Sept. 22, 1891	465,365	Duggan, J. A	Dec. 15, 1891
462,315	Hall, O. B.	Nov. 3, 1891	466,956	Russell, E. P	Jan. 12, 1892
462,564	Levy, J.	Nov. 3, 1891	476,889	Meyer, J. and Binder, C	June 14, 1892



---

APPENDIX No. XI.

PART II.

CONSISTING OF A

NUMERICAL AND CHRONOLOGICAL INDEX OF ALL PATENTS

RELATING TO

ELECTRICITY

Issued from July 1, 1891, to June 30, 1892, inclusive, giving names of Inventors,  
numbers and dates of Patents, and the sub-class to which each belongs.

---



# NUMERICAL INDEX

OF

## PATENTS RELATING TO ELECTRICITY

FROM JULY 1, 1891, TO JUNE 30, 1892.

No.	NAME.	CLASS.	DATE.
455,298	Bassett, N. C	Electric locomotives	July 7, 1891
455,316	Carl, M	Annunciators	July 7, 1891
455,320	Green, R. W	Telegraphy, keys	July 7, 1891
455,322	Griffiths, J. R	Railways, systems, overhead, trolleys	July 7, 1891
455,339	Knight, W. H	Railways, systems, conduit	July 7, 1891
455,340	Knight, W. H	do	July 7, 1891
455,341	Knight, W. H	do	July 7, 1891
455,342	Knight, W. H	do	July 7, 1891
455,343	Knight, W. H	do	July 7, 1891
455,352	Park, H. S	Time alarms	July 7, 1891
455,366	Swift, H. E	Lights, incandescent, special features	July 7, 1891
455,398	Haskins, C. D	Telegraphy, quadruplex	July 7, 1891
455,410	Newman, A	Time checks	July 7, 1891
455,420	Thomson, E	Heaters	July 7, 1891
455,421	Thomson, E	do	July 7, 1891
455,440	Lannert, J. A	Time checks	July 7, 1891
455,446	White, W. H	Alarms	July 7, 1891
455,447	Bradley, W	Railways, systems, conduit	July 7, 1891
455,451	Le Gueur, E. A	Bath apparatus	July 7, 1891
455,454	Rice, E. W., jr	Railways, systems	July 7, 1891
455,488	McGahan, F. L	Magneto-electric	July 7, 1891
455,510	Jordan, L. F	Telegraphy, railway car	July 7, 1891
455,517	Riker, A. L	Magneto-electric	July 7, 1891
455,518	Riker, A. L	do	July 7, 1891
455,520	Van Depoele, C. J	Transmission of power	July 7, 1891
455,524	Wood, J. J	Meters	July 7, 1891
455,532	Gregory, F. L	Clocks, electric	July 7, 1891
455,545	Killer, J. B	Figure toys	July 7, 1891
455,559	Ball, H. P	Lights, sockets, and keys	July 7, 1891
455,575	Olán, J. W. T	Meters	July 7, 1891
455,576	Olán, J. W. T	Lights, arc, non-feeding	July 7, 1891
455,581	Seiberling, J. F	Electric locomotives	July 7, 1891
455,631	Maigert, E. and Sabates, J	Sugar and salt, deflecting	July 7, 1891
455,680	Bogardus, C. A	Medical and surgical, body-wear	July 7, 1891
455,683	Von Dolivo-Dohrowsky, M	Transmission of power	July 7, 1891
455,693	Sample, H. C	Batteries, galvanic	July 7, 1891
455,696	Wilson, D. H	Telephones, switch-boards	July 7, 1891
455,711	Goode, L. G	Motors, reciprocating	July 7, 1891
455,722	Myers, W. J	Telephones, supports	July 7, 1891
455,726	Brown, W. F	Magneto-electric	July 7, 1891
11,177	Sperry, E. A	Steam street cars	July 7, 1891
455,747	Goodridge, W. M	Cut-outs, mechanical	July 14, 1891
455,763	Osner, W	Railways, systems, conduit	July 14, 1891
455,765	Porter, H. H	Motors	July 14, 1891
455,773	Stanley, W., jr., and Kelly, J. F	Motors, alternating	July 14, 1891
455,788	Chase, H. A	Telegraphy, fire, alarms and extinguishers	July 14, 1891
455,789	Cuttriss, C	Conductors	July 14, 1891
455,790	Entz, J. B	Magneto-electric	July 14, 1891
455,796	Hunter, R. M	Railways, systems, telpher	July 14, 1891
455,798	Knight, W. H	Railways, systems, overhead, trolleys	July 14, 1891
455,800	Rice, E. W., jr	Cut-outs, thermal	July 14, 1891
455,808	Wenström, J	Separators	July 14, 1891
455,809	Wenström, J	do	July 14, 1891
455,812	Chase, H. A. and Eaton, H. F	Telegraphy, fire	July 14, 1891
455,813	Chase, H. A. and Eaton, H. F	Telegraphy, circuit-closers, thermal	July 14, 1891
455,815	Farnham, I. H	Batteries, galvanic	July 14, 1891
455,837	Dahlgren, C. G. and Svensson, J. H	Cut-outs, mechanical	July 14, 1891
455,842	Smith, F. W., jr., and Williamson, S. S	Steam street cars	July 14, 1891
455,855	Eldredge, E. C	Batteries, galvanic	July 14, 1891
455,856	Farrington, C. H	Magneto-electric	July 14, 1891
455,873	Eaton, H. F	Telegraphy, fire	July 14, 1891
455,887	Rice, E. W., jr	Magneto-electric	July 14, 1891
455,898	Curtis, C. G	do	July 14, 1891

No.	NAME.	CLASS.	DATE.
455,904	McCracken, E. D.	Conductors	July 14, 1891
455,953	Scribner, C. E.	Lights, arc, gravity feed, clutch	July 14, 1891
455,955	Van Nuis, C. S. and Vail, J. H.	Telegraphy, lightning arresters	July 14, 1891
455,956	Wilcox, S. P. and Partello, J. D.	Railways, systems, closed conduit	July 14, 1891
455,968	MacLaughlan, J. R.	Batteries, secondary	July 14, 1891
455,971	McGahan, F. L.	Magneto-electric	July 14, 1891
455,972	Oudin P. and Kratz-Boussac, H. O.	Lights, incandescent, special features	July 14, 1891
455,981	Bethel, G. H.	Medical and surgical, baths	July 14, 1891
455,984	Fiske, H. G.	Separators	July 14, 1891
455,985	Fiske, H. G.	do	July 14, 1891
455,986	Hayes, H. V. and Hibbard, A. S.	Batteries, galvanic	July 14, 1891
456,006	Snedden, W. T.	Indicators	July 14, 1891
456,021	Fancher, L. N.	Medical and surgical, body-wear	July 14, 1891
456,023	Dickover, J. C. and Scott, W.	Time signals	July 14, 1891
456,098	Tietjen, G. H.	Indicators	July 14, 1891
456,110	Brown, J. W.	Telegraphy, keys	July 14, 1891
456,120	McCracken, E. D.	Conductors	July 14, 1891
456,148	Kinney, J. E., Brown, J. H., and Wade, C. G.	Sheave frame catches	July 21, 1891
456,172	Thomson, E.	Meters	July 21, 1891
456,182	Wiley, A. S.	Locks, electric	July 21, 1891
456,219	Granert, E.	Medical and surgical, body-wear	July 21, 1891
456,250	Platt, O. S.	Cut-outs, mechanical	July 21, 1891
456,252	Short, S. H.	Railways, conductors, supports and insulators	July 21, 1891
456,253	Short, S. H.	Electric locomotives	July 21, 1891
456,254	Short, S. H.	do	July 21, 1891
456,271	Herrick, C. H.	Conductors	July 21, 1891
456,280	Van Vleck, J.	Rheostats	July 21, 1891
456,325	Haberthür, B.	Clocks, electric	July 21, 1891
456,327	Smith, W. F.	Lights, sockets and keys	July 21, 1891
456,376	Delafoe, M.	Conductors, underground	July 21, 1891
456,408	Hadlock, W. E.	do	July 21, 1891
456,434	Samuel, E.	Railways, crossing	July 21, 1891
456,493	Lovell, S. H.	Cut-outs, mechanical	July 21, 1891
456,507	Fiske, H. S.	Separators	July 21, 1891
456,513	Hunter, R. M.	Railways, systems, conduit	July 21, 1891
456,514	Hunter, R. M.	Railways, systems, overhead	July 21, 1891
456,540	Bassler, J. H.	Heaters	July 21, 1891
456,541	Wiegand, S. L.	do	July 21, 1891
456,553	Carr, R. S.	Measuring instruments, squares	July 28, 1891
456,558	Flick, O. C.	Batteries, secondary	July 28, 1891
456,574	Jarboe, W. S., Seibert, W. P., and White, J.	Railways, conductors, supports and insulators	July 28, 1891
456,593	Popp, V.	Regulators	July 28, 1891
456,598	Sautter, F. L.	Lights, arc, positive feed, gear-clutch	July 28, 1891
456,600	Seibert, W. P.	Railways, conductors, supports and insulators	July 28, 1891
456,611	Balsley, W. H.	Conductors	July 28, 1891
456,612	Bentley, E. M.	Regulators	July 28, 1891
456,622	Lain, D. E.	Separators	July 28, 1891
456,667	Adams, W. G.	Alarms	July 28, 1891
456,673	Martain, F.	Coin-controlled apparatus, photographs	July 28, 1891
456,683	Verstraete, E.	Towers, telegraph poles	July 28, 1891
456,684	Wunderlich, A.	Igniting devices, automatic	July 28, 1891
456,685	Wunderlich, A.	do	July 28, 1891
456,718	Brooks, L. L.	Coin-controlled apparatus, induction coils	July 28, 1891
456,746	Voelker, H. A.	Inductoriums, induction coils	July 28, 1891
456,803	Dillman, W. C.	Annunciators	July 28, 1891
456,804	Von Dolivo-Dobrowolsky, M.	Motors, alternating	July 28, 1891
456,817	Hayes, H. V.	Telephones, switches	July 28, 1891
456,827	Johnson, W. H.	Clutches, longitudinal, movable with projection	July 28, 1891
456,835	McBride, J.	Valve-controllers	July 28, 1891
456,836	Newcomb, W.	Railways, signals	July 28, 1891
456,843	Pieper, H.	Batteries, secondary	July 28, 1891
456,859	Shank, C. H.	Street-light hanger	July 28, 1891
456,865	Tyler, J. W.	Electric lighting systems	July 28, 1891
456,888	Feilbogen, M.	System of distribution	July 28, 1891
456,889	Feilbogen, M.	do	July 28, 1891
456,908	Reynolds, G. H.	Elevators	July 28, 1891
456,925	Bassett, N. C.	Magneto-electric	July 28, 1891
456,940	Cobb, S. H.	Cut-outs, electro-magnetic	Aug. 4, 1891
456,970	Short, S. H.	Railways, electric locomotives	Aug. 4, 1891
456,979	Britt, E.	Railways, systems, closed conduit	Aug. 4, 1891
456,997	Levison, W. S.	Shade supports	Aug. 4, 1891
457,015	Short, S. H.	Railways, systems, overhead, trolleys	Aug. 4, 1891
457,016	Verstraete, E.	Car-brakes	Aug. 4, 1891
457,030	Menus, W. K. and Dudley, W. J.	Clocks, Electric	Aug. 4, 1891
457,036	Thomson E. and Rice, E. W., jr.	Railways, electric locomotives	Aug. 4, 1891
457,058	Parish, M. W.	Railways, track instruments	Aug. 4, 1891
457,065	Wessel, F. A.	Magneto-electric	Aug. 4, 1891



No.	NAME.	CLASS.	DATE.
457,067	Arnold, C. R	Car brakes	Aug. 4, 1891
457,072	Bryant, W. C	Lights, sockets and keys	Aug. 4, 1891
457,090	Mösher, J. A	Rheostats	Aug. 4, 1891
457,102	Bassett, N. C	Electric locomotives	Aug. 4, 1891
457,105	Boynton, E. M	Railways, conductors, supports and insulators	Aug. 4, 1891
457,106	Boynton, E. M	do	Aug. 4, 1891
457,109	Criggal, J	Lights, sockets and keys	Aug. 4, 1891
457,110	Daufenbach, C	Cut-outs, mechanical, oscillating snap	Aug. 4, 1891
457,116	Hard, J. R	Batteries, galvanic	Aug. 4, 1891
457,127	Luce, W. B	Motors	Aug. 4, 1891
457,135	Serrell, W. C	Railway, cab, sectional rail	Aug. 4, 1891
457,141	Wertz, X	Lights, incandescent	Aug. 4, 1891
457,151	Flagg, I. J	Lights, sockets and keys	Aug. 4, 1891
457,164	Mitchell, W	Pressing and ironing	Aug. 4, 1891
457,226	Short, S. H	Magneto-electric	Aug. 4, 1891
457,239	Van Hoevenbergh, H	Telegraphy, printing	Aug. 4, 1891
457,240	Wheatley, S. E. and Schlosser, J. W	Railways, systems, circuits, multiple arc	Aug. 4, 1891
457,296	Wilson, D. H	Alarms	Aug. 4, 1891
457,300	Bryant, W. C	Cut-outs, mechanical, oscillating snap	Aug. 4, 1891
457,301	Castor, L. D	do	Aug. 4, 1891
457,327	Paget, L	Magneto-electric	Aug. 4, 1891
457,330	Adams, T. E	Regulators	Aug. 4, 1891
11,185	Perkins, F. B	(Reis.) Elevators	Aug. 4, 1891
457,334	Adams, T. E	Railways, systems, overhead, trolleys	Aug. 11, 1891
457,338	Blades, H. H	Motors	Aug. 11, 1891
457,339	Blades, H. H	do	Aug. 11, 1891
457,343	Edison, T. A	Applications, general	Aug. 11, 1891
457,356	Lieb, C. A	Railways, systems, overhead, trolleys	Aug. 11, 1891
457,357	Mailloux, C. O	Electric locomotives	Aug. 11, 1891
457,358	Mailloux, C. O	Magneto-electric	Aug. 11, 1891
457,359	Mailloux, C. O	Electric locomotives	Aug. 11, 1891
457,362	Mitchell, W	Heaters	Aug. 11, 1891
457,374	Sedlmeyer, J. H	Lighting, systems	Aug. 11, 1891
457,377	Short, S. H	Railways, systems, overhead, trolleys	Aug. 11, 1891
457,378	Short, S. H	do	Aug. 11, 1891
457,382	Smith, M. H	Railways, systems, conduit	Aug. 11, 1891
457,407	Spencer, I.	Inductariums, transformers, stationary	Aug. 11, 1891
457,430	Pondroux, F.	Batteries, galvanic	Aug. 11, 1891
457,446	Van Benthuyssen, F.	Clutches, lever shoe	Aug. 11, 1891
457,453	Meylan, E. and Reckucewiski, W. C	Meters	Aug. 11, 1891
457,454	McCann, W. R. and Creider, S. S	Indicators	Aug. 11, 1891
457,457	Robison, C. W. and S. D	Heaters	Aug. 11, 1891
457,459	Connelly, J. S	Air and gas engines, explosive	Aug. 11, 1891
457,477	Hayes, H. V. and Lears, H. D	Telephones, systems, automatic	Aug. 11, 1891
457,483	Silvey, W. L	Cut-outs, electro-magnetic	Aug. 11, 1891
457,534	Hill, W. S	Motors	Aug. 11, 1891
457,545	Mangan, T. and Buckley, J. P	Farc registers	Aug. 11, 1891
457,555	Paget, L	Batteries, secondary	Aug. 11, 1891
457,561	Kennedy, R	Heaters	Aug. 11, 1891
457,565	Putnam, T. A. B	Railway signals	Aug. 11, 1891
457,572	Bergmann, S	Cut-outs, electro-magnetic	Aug. 11, 1891
457,573	Bergmann, S	Lights, incandescent, special features	Aug. 11, 1891
457,599	Brill, G. M	Steam street cars	Aug. 11, 1891
457,657	Mitchell, W	Magneto-electric	Aug. 11, 1891
457,660	Newman, N	Railways, conductor supports and insulators	Aug. 11, 1891
457,657	Weimer, F. A	Lights, incandescent, special features	Aug. 11, 1891
457,694	Armstrong, A. W	Magic lanterns	Aug. 11, 1891
457,736	Hunter, R. M	Railways, systems, conduit	Aug. 11, 1891
457,745	Mitchell, W	Heaters	Aug. 11, 1891
457,752	Street, W. W	Printing, matrix making	Aug. 11, 1891
457,754	Waring, E. M	Magneto-electric	Aug. 11, 1891
457,759	Coleman, L. H	Pen racks and cleaners	Aug. 11, 1891
457,761	Dillon, J	Conductors	Aug. 11, 1891
457,762	Dittmar, A. A. and Falkenhanger, H	Valve controllers	Aug. 11, 1891
457,763	Eltringham, W. P	Lights, filaments and carbons	Aug. 11, 1891
457,770	Carter, A. G	Tunnels	Aug. 18, 1891
457,778	Heron, W. B	Railways, systems, closed conduit	Aug. 18, 1891
457,802	Tripp, I.	Railway cars, trucks	Aug. 18, 1891
457,816	Kunhardt, D	Telegraphy, automatic	Aug. 18, 1891
457,828	Morfred, I. E	Conductors	Aug. 18, 1891
457,830	Von der Kammer, J.	Lights, filaments and carbons	Aug. 18, 1891
457,836	Degenhardt, F. E	Railways, systems, closed conduit	Aug. 18, 1891
457,837	Kilbourn, W. H	Steam valves, throttle	Aug. 18, 1891
457,838	Kilbourn, W. H	Valve controllers	Aug. 18, 1891
457,855	Munger, L. I	Railways, signals	Aug. 18, 1891
457,859	Matterbury, E. D. and Rankin, A. E	Game counters	Aug. 18, 1891
457,865	Manson, G. T	Connectors	Aug. 18, 1891

No.	NAME.	CLASS.	DATE.
457,870	Shoemaker, M	Railways, systems, conduit	Aug. 18, 1891
457,875	De Ferranti, S. Z.	Motors, alternating	Aug. 18, 1891
457,879	Madden, A. F.	Founding, soft metal machines	Aug. 18, 1891
457,880	Madden, A. F.	Batteries, secondary	Aug. 18, 1891
457,902	Kintner, C. J.	Motors	Aug. 18, 1891
457,906	Ward, R. J.	Magnetic locks and bolts	Aug. 18, 1891
457,944	Wheatley, S. E. and Schlosser, J. W.	Railways, systems, circuits, multiple arc	Aug. 18, 1891
458,025	Thomson, E.	Lights, arc, positive feed, gear-clutch	Aug. 18, 1891
458,026	Walker, M. F.	Projectiles, shells	Aug. 18, 1891
458,063	McKee, C. H.	Railways, systems, overhead	Aug. 18, 1891
458,115	Thomson, E.	Heating, metal working	Aug. 18, 1891
458,134	Steek, E. T.	Fire engines, chemical	Aug. 18, 1891
458,154	Clarke, G. D.	Igniting devices, automatic	Aug. 25, 1891
458,162	Gutmann, L.	Motors, alternating	Aug. 25, 1891
458,163	Gutmann, L.	Heaters	Aug. 25, 1891
458,164	Gutmann, L.	Motors, alternating	Aug. 25, 1891
458,176	Lemp, H.	Heating, metal working	Aug. 25, 1891
458,177	Lemp, H.	do	Aug. 25, 1891
458,178	Lester, C.	Time alarms	Aug. 25, 1891
458,184	Lovejoy, J. A.	Car ventilation	Aug. 25, 1891
458,188	Rasmussen, E.	Heating, metal working	Aug. 25, 1891
458,206	Winterholder, L.	Time alarms	Aug. 25, 1891
458,221	Chase, M. C.	Insulators	Aug. 25, 1891
458,236	McCarthy, L. C.	Magneto-electric	Aug. 25, 1891
458,242	Swift, H. E.	Lights, sockets and keys	Aug. 25, 1891
458,249	Greenamyer, C. V.	Car-brakes	Aug. 25, 1891
458,251	Lord, W. K.	Metronometers	Aug. 25, 1891
458,258	Berthon, L. A.	Telephones, systems, details	Aug. 25, 1891
458,278	Bocning, E.	Applications, tools and machiues	Aug. 25, 1891
458,279	Bristol, L.	Lights, incandescent, special features	Aug. 25, 1891
458,316	Degenhardt, F. E.	Conductors	Aug. 25, 1891
458,343	Richards, P. D.	Telegraphy, circuit closers	Aug. 25, 1891
458,372	Newton, J. O.	Time alarms	Aug. 25, 1891
458,376	Richards, W. S.	Lights, filaments and carbons	Aug. 25, 1891
458,377	Richards, W. S.	Railways, systems, converter	Aug. 25, 1891
458,386	Garland, N. M.	Lights, arc, special features	Aug. 25, 1891
458,387	Garland, N. M.	do	Aug. 25, 1891
458,388	Garland, N. M.	do	Aug. 25, 1891
458,389	Garland, N. M.	do	Aug. 25, 1891
458,396	Irish, W. F.	Cut-outs, thermal	Aug. 25, 1891
458,424	Lugo, O.	Batteries, secondary	Aug. 25, 1891
458,425	Lugo, O.	do	Aug. 25, 1891
458,427	Palmer, J. H.	Railways, conductor supports and insulators	Aug. 25, 1891
458,479	Noriega, E.	Telephones, magnetic	Aug. 25, 1891
458,486	Pinkham, H. A.	Igniting devices, manual	Aug. 25, 1891
458,489	Ramsey, J. jr., Harden, E. W., and Wilder, C. M.	Railway signals	Aug. 25, 1891
458,500	Sander, H. W.	Lights, arc, positive feed, gear-clutch	Aug. 25, 1891
458,536	Mohn, G. F.	Medical and surgical, body-wear	Aug. 25, 1891
458,545	Egan, C. E.	Railways, systems, battery	Aug. 25, 1891
458,551	Marmand, J. L.	Insulating materials	Aug. 25, 1891
458,555	Bassett, N. C.	Elevators, controllers	Sept. 1, 1891
458,556	Ba-sett, N. C.	do	Sept. 1, 1891
458,582	Knight, W. H.	Railways, systems, circuits, multiple arc	Sept. 1, 1891
458,583	Knight, W. H.	Railways, systems, conduit	Sept. 1, 1891
458,584	Knight, W. H.	Electric locomotives	Sept. 1, 1891
458,585	Kunhardt, D.	Telegraphy, circuits and systems	Sept. 1, 1891
458,587	Lincoln, J. C.	Car brakes	Sept. 1, 1891
458,603	Van Nuis, C. S. and Vail, J. H.	Cut-outs, thermal	Sept. 1, 1891
458,617	Clark, E. P.	Regulators	Sept. 1, 1891
458,618	Clark, E. P.	do	Sept. 1, 1891
458,619	Degenhardt, F. E.	Railways, systems, closed conduit	Sept. 1, 1891
458,620	Degenhardt, F. E.	Railways, systems, overhead, trolleys	Sept. 1, 1891
458,625	Hudman, W. J.	Induction coils	Sept. 1, 1891
458,630	Keller, E. E.	Railways, systems, closed conduit	Sept. 1, 1891
458,646	Thomson, E.	Regulators	Sept. 1, 1891
458,652	Bottomo, T. D.	Systems of distribution	Sept. 1, 1891
458,653	Bottomo, T. D.	Cut-outs, thermal	Sept. 1, 1891
458,656	Freeman, J. P.	Cut-outs, electro-magnetic	Sept. 1, 1891
458,665	Seymour, A. P.	Railways, systems, overhead, trolleys	Sept. 1, 1891
458,666	Short, S. H.	Lighting, systems	Sept. 1, 1891
458,702	Henderson, J. C. and Sargent, F.	Magneto-electric, couplings	Sept. 1, 1891
458,716	Munson, H.	Clocks, electric	Sept. 1, 1891
458,718	Seymour, A. P.	Lights, arc, special features	Sept. 1, 1891
458,719	Ward, B. B.	Lights, arc, gravity feed, gear-clutch	Sept. 1, 1891
458,729	Shaw, H. F. and G. F.	Electric locomotives	Sept. 1, 1891
458,747	Knight, W. H.	Railways, systems, conduit	Sept. 1, 1891
458,753	Hayes, H. V. and White, A. C.	Cut-outs, thermal	Sept. 1, 1891



No.	NAME.	CLASS.	DATE.
458,755	Koechlin, M.	Meters	Sept. 1, 1891
458,769	Aldrich, F. H.	Harps and hangers	Sept. 1, 1891
458,778	Reilly, J. C.	Conductors, underground	Sept. 1, 1891
458,784	Forsbacker, C. A. C.	Applications, general	Sept. 1, 1891
458,785	Driscoll, I.	Lubricators, loose pulley	Sept. 1, 1891
458,800	Badger, W. E.	Gearing	Sept. 1, 1891
458,815	Strubler, C. S.	Recorders	Sept. 1, 1891
458,844	Dion, L. O.	Railways, systems, overhead	Sept. 1, 1891
458,856	McLaughlin, J. F.	Magneto-electric	Sept. 1, 1891
458,859	Ries, E. E.	Railways, systems, converter	Sept. 1, 1891
458,866	Van Depoele, C. J.	Railways, systems, closed conduit	Sept. 1, 1891
458,867	Van Depoele, C. J.	Railways, systems	Sept. 1, 1891
458,868	Van Depoele, C. J.	Stone working, mining machines	Sept. 1, 1891
458,869	Van Depoele, C. J.	Motors, reciprocating	Sept. 1, 1891
458,870	Van Depoele, C. J.	Transmission of power	Sept. 1, 1891
458,871	Van Depoele, C. J.	Railways, systems, telpher	Sept. 1, 1891
458,872	Van Depoele, C. J.	Motors, reciprocating	Sept. 1, 1891
458,873	Van Depoele, C. J.	do	Sept. 1, 1891
458,874	Van Depoele, C. J.	Transmission of power	Sept. 1, 1891
458,876	Ward, B. B.	Light, arc, positive feed, gear-clutch	Sept. 1, 1891
458,879	Wissler, A.	Cut-outs, mechanical, oscillating snap	Sept. 1, 1891
458,880	Wissler, A.	Cut-outs, mechanical	Sept. 1, 1891
458,931	Wright, W. C.	Railways, systems, conduit	Sept. 1, 1891
458,932	Wright, W. C.	do	Sept. 1, 1891
458,947	Dillman, W. C.	Annunciators	Sept. 1, 1891
458,952	Riley, J. M.	Medical and surgical, body-wear	Sept. 1, 1891
458,953	Riley, J. M.	do	Sept. 1, 1891
458,954	Van Depoele, C. J.	Transmission of power	Sept. 1, 1891
458,956	Short, S. H.	Regulators	Sept. 1, 1891
458,961	Smith, R. C.	Lights, systems, test	Sept. 1, 1891
458,964	Ball, H. P.	Insulators	Sept. 1, 1891
458,976	Otis, N. P. and Smith, R. C.	Motors	Sept. 1, 1891
458,977	Otis, N. P. and Smith, R. C.	Elevators	Sept. 1, 1891
458,987	Turbayne, W. A.	Lights, arc, gravity feed, clutch	Sept. 1, 1891
459,013	Martin, M.	Telegraphy, fire, alarms and extinguishers	Sept. 8, 1891
459,024	Short, S. H.	Electric locomotives	Sept. 8, 1891
459,070	Mitchell, W.	Heaters	Sept. 8, 1891
459,088	Greenfield, E. T.	Lights, sockets and keys	Sept. 8, 1891
459,090	Pratt, C. R.	Elevators, controllers	Sept. 8, 1891
459,091	Stout, J. V.	Dampers, automatic	Sept. 8, 1891
459,100	Roberts, E. P.	Lights, incandescent	Sept. 8, 1891
459,127	Averall, G. W.	Medical and surgical, chairs and couches	Sept. 8, 1891
459,143	Mathews, H. W.	Medical and surgical, body-wear	Sept. 8, 1891
459,144	Mathews, H. W.	do	Sept. 8, 1891
459,168	Winslow, G. H.	Railways, conductor supports and insulators	Sept. 8, 1891
459,170	Farquhar, H. C.	Railway cars, platforms	Sept. 8, 1891
459,205	Howard, J. H.	Telephones, switches	Sept. 8, 1891
459,213	Howard, J. H.	do	Sept. 8, 1891
459,214	Howard, J. H.	do	Sept. 8, 1891
459,219	Castor, L. D.	Cut-outs, mechanical, rotary	Sept. 8, 1891
459,222	Lehmann, F. A.	Applications, general	Sept. 8, 1891
459,229	Blades, H. H.	Elevators	Sept. 8, 1891
459,236	Collins, G. S.	Electrolysis	Sept. 8, 1891
459,266	Chassagne, P. J.	Lights, incandescent, special features	Sept. 8, 1891
459,318	Thielman, W.	Tubes	Sept. 8, 1891
459,321	Ward, P. and Gregory, E. M.	Cartridges	Sept. 8, 1891
459,323	Wenste, C.	Indicators	Sept. 8, 1891
459,366	Lundell, R.	Magneto-electric	Sept. 8, 1891
459,367	Lundell, R.	do	Sept. 8, 1891
459,368	Lundell, R.	do	Sept. 8, 1891
459,378	McCracken, E. D.	Conductors	Sept. 8, 1891
459,385	Libby, H. W.	do	Sept. 8, 1891
459,422	Thomson, E.	Magneto-electric	Sept. 15, 1891
459,423	Thomson, E.	Inductariums, transformers, rotary	Sept. 15, 1891
459,442	Garrett, H.	Alarms	Sept. 15, 1891
459,447	Robertson, J. H.	Batteries, galvanic	Sept. 15, 1891
459,448	Sloan, W. E., Hughes, J. E., and Reed, O. S.	Telegraphy, circuits and systems	Sept. 15, 1891
459,456	Haynes, D. J. and Allen, O.	Railways, cab, sectional rail	Sept. 15, 1891
459,465	Allen, B. W.	Cut-outs, mechanical	Sept. 15, 1891
459,485	Caldwell, R. L.	Railways, conductor supports and insulators	Sept. 15, 1891
459,491	Currie, S. C. C.	Batteries, secondary	Sept. 15, 1891
459,508	Hodnit, J.	Magneto-electric	Sept. 15, 1891
459,509	Johns, H. W.	Conductors	Sept. 15, 1891
459,510	Knowles, E. R.	Lights, arc, gravity feed, gear-clutch	Sept. 15, 1891
459,514	Phillips, J. O.	Lights, sockets and keys	Sept. 15, 1891
459,523	Keller, J. N. and McCoy, J. A.	Conductors	Sept. 15, 1891
459,535	Silney, W. L.	Batteries, secondary	Sept. 15, 1891

No.	NAME.	CLASS.	DATE.
459,556	Watt, A.	Electrolysis	Sept. 15, 1891
459,560	Bryan, F.	Cut-outs, electro-magnetic	Sept. 15, 1891
459,588	Lewis, G. E.	Railways, systems, overhead, trolleys	Sept. 15, 1891
459,591	McMahon, J. P.	Telegraphy, fire, automatic	Sept. 15, 1891
459,605	Wollensak, J. F.	Telegraphy, circuit closers	Sept. 15, 1891
459,610	Dcsroziers, E.	Magneto-electric	Sept. 15, 1891
459,615	Ritchie, F.	Annunciators, drop	Sept. 15, 1891
459,633	Hoestmann, H. C.	Railway signals, cab, sectional rail	Sept. 15, 1891
459,633	Walter, H. E.	Motors, reciprocating	Sept. 15, 1891
459,678	Davis, J. W. and Farrington, J. B.	Friction generators	Sept. 15, 1891
459,681	Dorenwend, C. H.	Medical and surgical, body-wear	Sept. 15, 1891
459,686	Gerrard, C. L.	Railways, conductor supports and insulators	Sept. 15, 1891
459,689	Short, S. H.	Railways, systems, overhead, trolleys	Sept. 15, 1891
459,690	Short, S. H.	Electric locomotives	Sept. 15, 1891
459,704	Greenfield, E. T.	Cut-outs, thermal	Sept. 15, 1891
459,705	Greenfield, E. T.	Lights, incandescent, special features	Sept. 15, 1891
459,706	Hart, G. W.	Cut-outs, mechanical, rotary	Sept. 15, 1891
459,711	Scribner, C. E.	Telephones, switch-boards	Sept. 15, 1891
459,721	Frolofi, N. and Snobotin, W.	Lighting, systems	Sept. 15, 1891
11,189	Carr, R. S.	(Reis.) Measuring instruments, squares	Sept. 15, 1891
459,737	Bentley, E. M.	Railways, systems, overhead	Sept. 22, 1891
459,739	Blades, H. H.	Magneto-electric	Sept. 22, 1891
459,749	Hipwell, H. H.	Lamps and gas fittings, guards	Sept. 22, 1891
459,753	Jones, R. M.	Railways, systems, overhead	Sept. 22, 1891
459,757	Logan, M. S. and Bailey, J. H.	Lights, arc, gravity feed, clutch	Sept. 22, 1891
459,772	Tesla, N.	Motors, alternating	Sept. 22, 1891
459,786	Lean, G. R.	Cut-outs, electro-magnetic	Sept. 22, 1891
459,794	Short, S. H.	Rheostats	Sept. 22, 1891
459,800	Waite, H. E.	do	Sept. 22, 1891
459,810	Conly, M. S.	Regulators	Sept. 22, 1891
459,811	Conly, M. S.	do	Sept. 22, 1891
459,815	Hunter, R. M.	Railways, systems, overhead	Sept. 22, 1891
459,820	Short, S. H.	Magneto-electric	Sept. 22, 1891
459,835	Edison, T. A.	Lights, incandescent	Sept. 22, 1891
459,839	Johnston, A. L.	Lighting, systems	Sept. 22, 1891
459,840	Johnston, A. L.	do	Sept. 22, 1891
459,843	Thomas, V. A.	Insulators	Sept. 22, 1891
459,844	Thomas, V. A.	Towers, telegraph poles	Sept. 22, 1891
459,845	Thomas, V. A.	Lights, arc, special features	Sept. 22, 1891
459,846	Thomas, V. A.	do	Sept. 22, 1891
459,848	Wetmore, J. A.	Railways, systems, overhead, trolleys	Sept. 22, 1891
459,852	Hoffmann, C. P. and Van Houten, W. B.	Medical and surgical, baths	Sept. 22, 1891
459,863	Ayton, C. W.	Recorders, pressure	Sept. 22, 1891
459,872	Tommasi, D.	Lights, incandescent, special features	Sept. 22, 1891
459,917	Smith, F. E.	Time alarms	Sept. 22, 1891
459,923	Beattie, J., jr.	Magneto-electric	Sept. 22, 1891
459,930	Ghegan, J. J.	Telegraphy, duplex	Sept. 22, 1891
459,941	Brooks, D., jr.	Conductors	Sept. 22, 1891
459,942	Brown, F. H.	Medical and surgical, body-wear	Sept. 22, 1891
459,984	Wilson, H. T.	Alarms, burglar	Sept. 22, 1891
460,019	Kruschke, R. C.	do	Sept. 22, 1891
460,040	Short, S. H.	Electric locomotives	Sept. 22, 1891
460,046	Bradley, C. S.	Motors, alternating	Sept. 22, 1891
460,048	Farwell, F. M.	Connectors	Sept. 22, 1891
460,059	McElroy, J. F.	Regulators	Sept. 22, 1891
460,071	Hunter, R. M.	Systems of distribution	Sept. 22, 1891
460,076	Wheeler, S. S.	Motors	Sept. 22, 1891
460,081	Collins, W. S.	Railways, pneumatic, despatch tubes	Sept. 22, 1891
460,087	Hewett, E. M. S.	Motors	Sept. 22, 1891
460,089	Lipe, C. E.	Stone working, drills	Sept. 22, 1891
460,095	Strom, O.	Lights, incandescent, special features	Sept. 22, 1891
460,109	Burke, C. G.	Telegraphy, automatic	Sept. 29, 1891
460,110	Burke, C. G.	Telegraphy, relays and sounders	Sept. 29, 1891
460,111	Burke, C. S.	do	Sept. 29, 1891
460,122	Edison, T. A.	Batteries, galvanic	Sept. 29, 1891
460,125	Fink, W. M.	Motors	Sept. 29, 1891
460,140	Howell, J. W.	Cut-outs, thermal	Sept. 29, 1891
460,163	Smith, F. F.	Railways, systems, overhead, trolleys	Sept. 29, 1891
460,199	Cushing, J. P. and Kelly, W. J.	Lighting, systems	Sept. 29, 1891
460,232	Hain, W.	Lubricators, loose pulley	Sept. 29, 1891
460,235	McDonald, J. B.	Batteries, secondary	Sept. 29, 1891
460,245	Arnold, C. R.	Magneto-electric, couplings	Sept. 29, 1891
460,277	Gardiner, J. B.	Batteries, galvanic	Sept. 29, 1891
460,287	Shaffer, W. C.	Telegraphy, fire, alarms and extinguishers	Sept. 29, 1891
460,289	Wood, J. J.	Telegraphy, lightning arresters	Sept. 29, 1891
460,328	Wright, J. E.	Telegraphy, printing, wheel	Sept. 29, 1891
460,349	Cassagnes, G. A.	Telegraphy, printing, multiple wheel	Sept. 29, 1891



No.	NAME.	CLASS.	DATE.
460,354	Von Siemens, W	Electrolysis	Sept. 29, 1891
460,364	Rice, E. W	Lighting, systems	Sept. 29, 1891
460,372	Elkins, W. H	Regulators	Sept. 29, 1891
460,391	Hull, W. S	Locks, electric	Sept. 29, 1891
460,416	White, J. E	Telegraphy, circuit closers	Sept. 29, 1891
460,428	Coffin, C. L	Heating, soldering	Sept. 29, 1891
460,448	Ross, F. A	Insulators	Sept. 29, 1891
460,457	Wright, J. E	Telegraphy, printing, wheel	Sept. 29, 1891
460,464	Cook, W. S. and M. C., and Morrow, A. H	Telegraphy, fire, alarms and extinguishers	Sept. 29, 1891
460,488	Van Depoele, C. J	Railways, systems, overhead	Sept. 29, 1891
460,503	Hay, W	Bells	Sept. 29, 1891
460,504	Hunter, R. M	Sewing machines, special machines	Sept. 29, 1891
460,505	Hunter, R. M	do	Sept. 29, 1891
460,506	Hunter, R. M	do	Sept. 29, 1891
460,508	Hunter, R. M	do	Sept. 29, 1891
460,514	Stadelman, W. A	Cranes and derricks, elevated, double track	Sept. 29, 1891
460,524	Deszant, W. F. Z	Railway signals, sectional rail	Sept. 29, 1891
460,525	Deszant, W. F. Z	Railway signals, cab, sectional rail	Sept. 29, 1891
460,538	Phillips, J. O	Cut-outs, thermal	Sept. 29, 1891
460,541	Smith, R. C	Elevators	Sept. 29, 1891
460,548	Ball, H. P	Cut-outs, thermal	Oct. 6, 1891
460,571	Edwards, D. W	Railways, systems, overhead	Oct. 6, 1891
460,572	Farmer, M. G	Telegraphy, printing, wheel	Oct. 6, 1891
460,587	Libbey, H. W	Lights, arc, gravity feed, gear-clutch	Oct. 6, 1891
460,595	Roberts, I. L	Lights, filaments and carbons	Oct. 6, 1891
460,596	Roberts, I. L	do	Oct. 6, 1891
460,597	Roberts, I. L	do	Oct. 6, 1891
460,599	Rosenbaum, W. A	Batteries, secondary	Oct. 6, 1891
460,606	Vogler, W	Conductors, anti-inductive	Oct. 6, 1891
460,607	Vogler, W	Conductors, underground	Oct. 6, 1891
460,614	Wightman, M. J	Railways, systems, battery	Oct. 6, 1891
460,615	Wightman, M. J	do	Oct. 6, 1891
460,618	Wirt, C	Cut-outs, mechanical	Oct. 6, 1891
460,619	Wood, A	Telegraphy, automatic	Oct. 6, 1891
460,634	Fricker, T	Railways, conductor supports and insulators	Oct. 6, 1891
460,650	McIntosh, L. D	Galvanometers	Oct. 6, 1891
460,652	Openlander, E. J	Lights, arc, special features	Oct. 6, 1891
460,674	Gross, A	Advertising, signs	Oct. 6, 1891
460,676	Stover, A	Telegraphy, Morse registers	Oct. 6, 1891
460,680	Libbey, H. W	Lights, filaments and carbons	Oct. 6, 1891
460,695	White, L. S	Applications, tools and machines	Oct. 6, 1891
460,701	Cleveland, W. B	Cut-outs, electro-magnetic	Oct. 6, 1891
460,722	Tanner, W. J	Metallurgy, amalgamators	Oct. 6, 1891
460,725	Markle, J. R	Conductors	Oct. 6, 1891
460,735	Wenks, jr., N	Railways, conductor supports and insulators	Oct. 6, 1891
460,765	Thomson, E	Insulating materials	Oct. 6, 1891
460,767	Wilder, E. R	Telegraphy, fire	Oct. 6, 1891
460,771	Coombes, D. C. and Rowe, W	Railway signals, block systems	Oct. 6, 1891
460,779	De Jaeger, S. and Zontman, A	Railway signals, cab, sectional rail	Oct. 6, 1891
460,780	Keller, E. E	Railways, systems, closed conduit	Oct. 6, 1891
460,781	Keller, E. E	Railways, systems, overhead, trolleys	Oct. 6, 1891
460,864	Hadley, E. W	Railway signals, cab, sectional rail	Oct. 6, 1891
460,887	Robbins, I.	Railways, systems, closed conduit	Oct. 6, 1891
460,895	Smith, H. P	Alarms	Oct. 6, 1891
460,926	Williams, J. T	Electro-magnets	Oct. 6, 1891
460,942	Browne, W. L	Railways, systems, overhead, trolleys	Oct. 13, 1891
460,958	Dunn, L	Telegraphy, railway car	Oct. 13, 1891
460,962	Gonyard, G. M	Separators	Oct. 13, 1891
460,963	Haight, H. J	Clocks, electric	Oct. 13, 1891
460,967	Hill, J. T. and Meiring, B	Railways, rails	Oct. 13, 1891
460,968	Holmes, O. B. and Gale, G. F	Lights, incandescent, special features	Oct. 13, 1891
460,972	Kessner, O. A	Rheostats	Oct. 13, 1891
460,978	Mitchell, W	Heating, soldering	Oct. 13, 1891
460,979	Mitchell, W	Domestic boilers	Oct. 13, 1891
460,980	Mitchell, W	Heaters	Oct. 13, 1891
460,991	Reinmann, A. L	Lights, incandescent	Oct. 13, 1891
461,023	Lamb, D. M	Batteries, galvanic	Oct. 13, 1891
461,024	Lamb, D. M	do	Oct. 13, 1891
461,025	Lamb, D. M	do	Oct. 13, 1891
461,026	Lamb, D. M	do	Oct. 13, 1891
461,027	Lamb, D. M	do	Oct. 13, 1891
461,052	Shaw, A. J	Elevators	Oct. 13, 1891
461,057	Shover, B. R. and Dickson, W. C	Railways, systems, converter	Oct. 13, 1891
461,075	Gates, W. L	Toys, electric	Oct. 13, 1891
461,076	Gates, W. L	do	Oct. 13, 1891
461,087	Soley, W. H	Telegraphy, fire, alarms and extinguishers	Oct. 13, 1891
461,089	Wolstencroft, J. and Soley, W. H	do	Oct. 13, 1891

No.	NAME.	CLASS.	DATE.
461,104	Mettler, E. G.	Alarms	Oct. 13, 1891
461,105	McGahan, F. L.	Lubricators, miscellaneous	Oct. 13, 1891
461,109	Ball, H. P.	Fences, wire stretchers, removable	Oct. 13, 1891
461,122	Troy, R. F.	Electric locks	Oct. 13, 1891
461,135	Stanley, W., jr.	Inductoriurns, transformers, stationary	Oct. 13, 1891
461,139	Kennedy, R.	Systems of distribution	Oct. 13, 1891
461,140	Kennedy, R.	Magneto-electric	Oct. 13, 1891
461,144	Thomson, E.	Lights, arc, positive feed, gear-clutch	Oct. 13, 1891
461,152	Soblik, M.	Telegraphy, automatic	Oct. 13, 1891
461,169	Loomis, F. F.	Telegraphy, fire, non-interfering	Oct. 13, 1891
461,178	Beckers, M.	Alarms	Oct. 13, 1891
461,194	Stoner, J. W.	Telegraphy, fire	Oct. 13, 1891
461,195	Dillon, J.	Conductors	Oct. 13, 1891
461,228	Willett, G.	Electric locomotives	Oct. 13, 1891
461,229	Baldwin, G. R.	Meters	Oct. 13, 1891
461,239	Foster, H. A.	Conductors, underground	Oct. 13, 1891
461,240	Gilliland, E. T.	Magneto-electric	Oct. 13, 1891
461,262	Hieronymus, P.	Batteries, galvanic	Oct. 13, 1891
461,272	Perret, F. A.	Insulators	Oct. 13, 1891
461,279	Schiefer, F. W.	Time checks	Oct. 13, 1891
461,293	Van Depoele, C. J.	Street cars, steam	Oct. 13, 1891
461,294	Van Depoele, C. J.	Transmission of power	Oct. 13, 1891
461,295	Van Depoele, C. J.	Motors, reciprocating	Oct. 13, 1891
461,296	Van Depoele, C. J.	Magneto-electric	Oct. 13, 1891
461,297	Van Depoele, C. J.	Transmission of power	Oct. 13, 1891
461,298	Van Nort, S. P.	Cut-outs, mechanical	Oct. 13, 1891
461,355	Lyons, B.	Window guards	Oct. 13, 1891
461,371	Shaffer, W. C.	Telegraphy, fire, alarms and extinguishers	Oct. 13, 1891
461,420	Brush, C. F.	Lights, arc, special features	Oct. 20, 1891
461,423	Du Laney, J. W. and C. F.	Clocks, electric	Oct. 20, 1891
461,424	Du Laney, J. W.	do	Oct. 20, 1891
461,437	Iden, C. W.	Batteries, thermal	Oct. 20, 1891
461,452	Scrugham, G. R.	Connectors	Oct. 20, 1891
461,456	Swan, A.	Cut-outs, mechanical	Oct. 20, 1891
461,464	Wood, F. B.	Telegraphy, fire	Oct. 20, 1891
461,467	Farrar, M. O. and Howe, C. C.	Insulating materials	Oct. 20, 1891
461,470	Gray, E.	Telegraphy, automatic	Oct. 20, 1891
461,471	Gray, E.	do	Oct. 20, 1891
461,472	Gray, E.	do	Oct. 20, 1891
461,743	Gray, E.	do	Oct. 20, 1891
461,474	Gray, E.	do	Oct. 20, 1891
461,518	Barrett, C. T.	Railway signals, cab	Oct. 20, 1891
461,526	Thomson, E.	Regulators, alternating	Oct. 20, 1891
461,548	Bentley, E. M.	Railways, systems, conduit	Oct. 20, 1891
461,549	Knight, W. H.	do	Oct. 20, 1891
461,552	Sprague, F. J.	Magneto-electric	Oct. 20, 1891
461,554	Stout, J. V.	Valve controllers	Oct. 20, 1891
461,555	Stout, J. V.	do	Oct. 20, 1891
461,560	Ball, H. P.	Cut-outs, mechanical	Oct. 20, 1891
461,561	Ball, H. P.	do	Oct. 20, 1891
461,562	Ball, H. P.	Cut-outs, mechanical, oscillating snap	Oct. 20, 1891
461,563	Ball, H. P.	Connectors	Oct. 20, 1891
461,568	Delany, P. B.	do	Oct. 20, 1891
461,569	Dobbie, R. S.	Lighting, systems, automatic regulation	Oct. 20, 1891
461,570	Favor, L. B.	Cut-outs, thermal	Oct. 20, 1891
461,573	Gould, C. C.	Telephones, switches	Oct. 20, 1891
461,575	Herrick, A. B.	Meters	Oct. 20, 1891
461,582	Lieb, C. A.	Railways, conductor supports and insulators	Oct. 20, 1891
461,611	Hudson, C. E.	Railways, systems, overhead	Oct. 20, 1891
461,631	Hewitt, R. J.	Insulators	Oct. 20, 1891
461,657	Weisser, T.	Railways, signals	Oct. 20, 1891
461,659	Wirsching, A. and Schefbaner, R.	Lights, arc, gravity feed, gear-clutch	Oct. 20, 1891
461,662	Brill, G. M.	Street cars, steam	Oct. 20, 1891
461,677	Greenfield, E. T.	Conductors, underground	Oct. 20, 1891
461,681	Kautz, J. C.	Metalloids	Oct. 20, 1891
461,685	Mansfield, F.	Railways, systems, closed conduit	Oct. 20, 1891
461,690	Short, S. H.	Railways, systems, overhead, trolleys	Oct. 20, 1891
461,706	McCutcheon, W. J., jr.	Lights, sockets and keys	Oct. 20, 1891
461,718	Slater, W. W. and Barnes, H. C.	Bells	Oct. 20, 1891
461,745	Field, C. H. and C. H., jr.	Engraving machines	Oct. 20, 1891
461,748	Fouts, L. F.	Annunciators, drop	Oct. 20, 1891
461,760	La Burt, J.	Railway signals, cab, sectional rail	Oct. 20, 1891
461,761	Lean, G. R.	Cut-outs, mechanical	Oct. 20, 1891
461,770	Ambler, A. J.	Car-brakes	Oct. 20, 1891
461,785	Pfounts, L. S.	Railways, conductor supports and insulators	Oct. 20, 1891
461,791	Bergmaun, S.	Lighting, systems	Oct. 20, 1891
461,795	Lundell, R.	Magneto-electric	Oct. 20, 1891



No.	NAME.	CLASS.	DATE.
461,797	Marshall, J. T.	Lights, filaments and carbons	Oct. 20, 1891
461,808	Atwood, L. M. C.	Car brakes	Oct. 27, 1891
461,809	Benjamin, F. P.	Railway signals, cab	Oct. 27, 1891
461,810	Benjamin, F. P.	do	Oct. 27, 1891
461,814	Cápek, J. V.	Heaters	Oct. 27, 1891
461,823	Entz, J. B. and Phillips, W. A.	Batteries, secondary	Oct. 27, 1891
461,840	Lieb, C. A.	Railways, systems, overhead, trolleys	Oct. 27, 1891
461,851	Short, S. H.	Railways, systems, circuits, multiple arc	Oct. 27, 1891
461,856	Thomson, E.	Metal working, tools and implements	Oct. 27, 1891
461,858	Waddell, M. and Entz, J. B.	Batteries, secondary	Oct. 27, 1891
461,862	Young, C. G.	Magneto-electric	Oct. 27, 1891
461,868	Fleming, J. H.	Connectors	Oct. 27, 1891
461,887	McKivitt, W. E.	Telephones, systems	Oct. 27, 1891
461,898	Poole, C. P.	Lights, sockets and keys	Oct. 27, 1891
461,965	Southey, C. N.	Batteries, galvanic	Oct. 27, 1891
461,969	Vansize, W. B.	Railways, systems, battery	Oct. 27, 1891
461,979	Mayer, M.	Magneto-electric	Oct. 27, 1891
461,991	Van Brunt, E. W. and Raynor, W. M.	Telegraphy, lightning arresters	Oct. 27, 1891
462,014	McNear, G. W.	Railways, systems, closed conduit	Oct. 27, 1891
462,020	Silvey, W. L.	Regulators	Oct. 27, 1891
462,022	Spaulding, W. C.	Railways, systems, overhead	Oct. 27, 1891
462,033	Cleveland, W. B.	Cut-outs, mechanical	Oct. 27, 1891
462,053	Lacey, T. A.	Rheostats	Oct. 27, 1891
462,153	Nesmith, A. D.	Railways, systems, conduit	Oct. 27, 1891
462,177	Thomas, C. W.	Railways, systems, closed conduit	Oct. 27, 1891
462,207	Coffin, C. L.	Metal working, heating	Oct. 27, 1891
462,219	Hunter, R. M.	Railways, systems, overhead, trolleys	Oct. 27, 1891
462,237	Conklin, J. I.	Batteries, secondary	Nov. 3, 1891
462,261	Lemp, H. and Anderson, C. G.	Heaters	Nov. 3, 1891
462,262	Lemp, H.	do	Nov. 3, 1891
462,263	Lemp, H.	do	Nov. 3, 1891
462,311	Garland, F. M.	Lighting, systems, car	Nov. 3, 1891
462,315	Hall, O. B.	Towers, telegraph poles, electric wire supports	Nov. 3, 1891
462,321	Moffatt, R. M. and Chichester, S.	Separators	Nov. 3, 1891
462,322	Moffatt, R. M. and Chichester, S.	do	Nov. 3, 1891
462,331	Bentley, F. M.	Railways, systems, conduit	Nov. 3, 1891
462,338	Thomson, E.	Cut-outs, thermal	Nov. 3, 1891
462,339	Thomson, E.	do	Nov. 3, 1891
462,345	Wood, F. B.	Telegraphy, fire	Nov. 3, 1891
462,348	Chinuock, C. E.	Machine brakes	Nov. 3, 1891
462,349	Eckstrom, A.	Cut-outs, thermal	Nov. 3, 1891
462,353	Hoopes, M.	Cut-outs, mechanical	Nov. 3, 1891
462,359	Lieb, C. A.	Railways, conductor supports and insulators	Nov. 3, 1891
462,369	Blackwell, F. O.	Motors	Nov. 3, 1891
462,381	Hale, C. A.	Bells	Nov. 3, 1891
462,403	Gillette, H.	Railway gates, electric	Nov. 3, 1891
462,407	Hunter, R. M.	Cut-outs, mechanical	Nov. 3, 1891
462,418	Te-la, N.	Systems of distribution	Nov. 3, 1891
462,444	Meech, H. B.	Lights, incandescent, special features	Nov. 3, 1891
462,449	Palmer, J. H.	Batteries, secondary	Nov. 3, 1891
462,452	Rice, E. W., jr.	Cut-outs, thermal	Nov. 3, 1891
462,463	Ball, H. P.	do	Nov. 3, 1891
462,466	Blackwell, F. O.	Magneto-electric	Nov. 3, 1891
462,477	Dnval, A. and Nelson, H.	Globes	Nov. 3, 1891
462,489	Johnson, E. H.	Conductors	Nov. 3, 1891
462,504	Olan, J. W. T.	Meters	Nov. 3, 1891
462,513	Stewart, J. B.	Railway signals, block	Nov. 3, 1891
462,527	Blades, H. H. and McKee, W. J.	Elevators	Nov. 3, 1891
462,532	Cápek, J. V.	Heaters	Nov. 3, 1891
462,540	Edison, T. A.	Lights, incandescent	Nov. 3, 1891
462,564	Levy, J.	Towers, telegraph poles	Nov. 3, 1891
462,571	Mueller, E. T.	Lights, incandescent, special features	Nov. 3, 1891
462,574	McCutcheon, W. J., jr.	Lights, sockets and keys	Nov. 3, 1891
462,578	Nuttall, R. D.	Railways, systems, overhead, trolleys	Nov. 3, 1891
462,595	Sheldon, J. B. and Murnane, D. J.	Railways, systems, closed conduit	Nov. 3, 1891
462,599	Stanton, A.	Medical and surgical, combs and brushes	Nov. 3, 1891
462,624	Conroy, T.	Lights, arc, clutch	Nov. 3, 1891
462,648	Bolles, F. G.	Conductors, underground	Nov. 3, 1891
462,660	Carpenter, F. H.	Lights, arc, special features	Nov. 3, 1891
462,661	Carpenter, F. H.	do	Nov. 3, 1891
462,662	Chapman, H. E.	do	Nov. 3, 1891
462,663	Chapman, H. E.	do	Nov. 3, 1891
462,669	Johnson, F. A.	do	Nov. 3, 1891
462,672	Robertson, A. J.	Railways, systems, conduit	Nov. 3, 1891
462,673	Russell, E. C.	Lights, arc, gravity feed, clutch	Nov. 3, 1891
462,677	Fay, T. J.	Lights, socket and keys	Nov. 3, 1891
462,681	Barrett, J. A.	Conductors	Nov. 10, 1891

No.	NAME.	CLASS.	DATE.
462,688	Camp, H. C.	Railways, systems, conduit	Nov. 10, 1891
462,693	Edgerton, N. H.	Batteries, secondary	Nov. 10, 1891
462,698	Giles, J. E.	Lights, arc, gravity feed, gear-clutch	Nov. 10, 1891
462,707	Hipwood, G.	Railways, systems, overhead, trolleys	Nov. 10, 1891
462,720	Miller, K. V.	Telegraphy, circuits and systems	Nov. 10, 1891
462,732	Peterson, P. E.	Medical and surgical, body-wear	Nov. 10, 1891
462,741	Rolfe, C. A.	Telegraphy, fire	Nov. 10, 1891
462,751	Van Depoele, C. J.	Electric locomotives	Nov. 10, 1891
462,756	Wood, J. J.	Lights, arc, special features	Nov. 10, 1891
462,785	Wilder, E. R.	Telegraphy, fire	Nov. 10, 1891
462,786	Wilder, E. R.	do	Nov. 10, 1891
462,793	Collier, J. D. and Miller, J. K. P.	Car brakes	Nov. 10, 1891
462,794	Collier, J. D. and Miller, J. K. P.	Telegraphy, railway car	Nov. 10, 1891
462,807	Collier, J. D. and Miller, J. K. P.	Applications, general	Nov. 10, 1891
462,808	Cregier, N. B.	Telegraphy, fire	Nov. 10, 1891
462,813	Gray, W.	Coin-controlled apparatus, miscellaneous	Nov. 10, 1891
462,834	Armstrong, C. G.	Annunciators	Nov. 10, 1891
462,835	Armstrong, C. G.	Indicators	Nov. 10, 1891
462,836	Burnet, H. W.	Cut-outs, mechanical	Nov. 10, 1891
462,850	Petenal, T. H.	Railway signals, track instruments	Nov. 10, 1891
462,880	Short, S. H.	Magneto-electric	Nov. 10, 1891
462,881	Short, S. H.	do	Nov. 10, 1891
462,882	Short, S. H.	do	Nov. 10, 1891
462,883	Short, S. H.	do	Nov. 10, 1891
462,901	Jones, F. W.	Telegraphy, quadruplex	Nov. 10, 1891
462,926	Hunter, R. M.	Heaters	Nov. 10, 1891
462,973	Thomson, E. and Walkefield, W. O.	Magneto-electric	Nov. 17, 1891
463,001	Smith, J. B.	Alarms	Nov. 17, 1891
463,020	Woods, G. T.	Railways, systems, closed conduit	Nov. 17, 1891
463,024	Bates, J. W. and Blake, C. E.	Railways, systems, overhead, trolleys	Nov. 17, 1891
463,035	Gaston, J. E.	Lights, arc, gravity feed, gear-clutch	Nov. 17, 1891
463,072	Nelson, J. M.	Indicators, station	Nov. 17, 1891
463,079	Snediker, C. T.	Conductors	Nov. 17, 1891
463,086	Waterhouse, A. G.	Lighting, systems	Nov. 17, 1891
463,107	Degenhardt, F. E.	Conductors	Nov. 17, 1891
463,121	Garland, F. M.	Magneto-electric, couplings	Nov. 17, 1891
463,154	Jandus, W.	Lights, arc, special features	Nov. 17, 1891
463,155	Johnson, W. J. O.	Electric locks	Nov. 17, 1891
463,164	Morton, F. G.	Boot-blackening machines	Nov. 17, 1891
463,172	Smith, T. C.	Insulators	Nov. 17, 1891
463,174	Southland, B. D.	Magneto-electric	Nov. 17, 1891
463,188	Gibboney, J. W.	Telephones, electric	Nov. 17, 1891
463,192	Herrick, C. H. and Rand, W. M.	Cut-outs, electro-magnetic	Nov. 17, 1891
463,197	Love, J. C.	Railways, systems, conduit	Nov. 17, 1891
463,198	Mellelt, L.	Valve controllers	Nov. 17, 1891
463,207	Weaver, E. E.	Telegraphy, relays and sounders	Nov. 17, 1891
463,213	Lemp, H.	Cut-outs, thermal	Nov. 17, 1891
463,242	Burt, M. C.	Magneto-electric	Nov. 17, 1891
463,247	Crowdus, W. A.	Batteries, galvanic	Nov. 17, 1891
463,248	Crowdus, W. A.	do	Nov. 17, 1891
463,257	Smith, C.	Railways, systems	Nov. 17, 1891
463,297	Starrett, F. H.	Locks and latches	Nov. 17, 1891
463,298	Wrigley, J. and Chambers, G. P.	Telegraphy, circuit closers, thermal	Nov. 17, 1891
463,305	Hoffman, W. D.	Separators	Nov. 17, 1891
463,310	Silver, W. J.	Railways, systems, overhead	Nov. 17, 1891
463,311	Bagnall, E. J.	Cut-outs, mechanical	Nov. 17, 1891
463,314	Guteman, L.	Motors, alternating	Nov. 17, 1891
463,315	Hockett, J. A.	Electric locomotives	Nov. 17, 1891
463,340	Stevens, G. M.	Telegraphy, fire repeaters	Nov. 17, 1891
463,356	Short S. H.	Electric locomotives	Nov. 17, 1891
463,359	Adams, T. E.	Railways, systems, overhead, trolleys	Nov. 17, 1891
463,384	Foster, W. W.	Igniting devices, manual	Nov. 17, 1891
463,395	Strauss, J. B.	Telegraphy, railway car	Nov. 17, 1891
463,396	Swan, A.	Cut-outs, mechanical, rotary	Nov. 17, 1891
463,420	Gartland, F. X.	Railways, conductor supports and insulators	Nov. 17, 1891
463,428	Maret, J.	Telegraphy, relays and sounders	Nov. 17, 1891
463,486	Coffin, C. L.	Metal working, heating	Nov. 17, 1891
463,487	Coffin, C. L.	do	Nov. 17, 1891
463,491	Cutler, J. L.	Indicators	Nov. 17, 1891
463,512	Holmes, P. H.	Lights, filaments and carbons	Nov. 17, 1891
463,544	Pickernell, F. A.	Telephones, systems, multiple switch-board	Nov. 17, 1891
463,545	Pickernell, F. A.	do	Nov. 17, 1891
463,556	Snyder, L. H.	Telephones, details	Nov. 17, 1891
463,558	Thomson, W.	Meters	Nov. 17, 1891
463,562	Wilcomb, F.	Knitting and netting, stopping	Nov. 17, 1891
463,569	Berliner, E.	Telephones	Nov. 17, 1891
463,570	Bichet, A. and Whitney, R. W.	Telegraphy, fire	Nov. 17, 1891



No.	NAME.	CLASS.	DATE.
463,585	Snow, W. B.	Pneumatic air and gas pumps, rotary	Nov. 17, 1891
463,586	Thomas, V. A.	Lights, arc, special features	Nov. 17, 1891
463,587	Thomas, V. A.	Insulators	Nov. 17, 1891
463,588	Thomas, V. A.	do	Nov. 17, 1891
463,595	Clark, E. P.	Lights, arc, gravity feed, clutch	Nov. 17, 1891
463,605	Lahmeyer, W.	Motors	Nov. 17, 1891
463,608	Brown, A. W.	Telegraphy, fire, automatic	Nov. 17, 1891
463,615	Baxter, W., jr.	Elevators	Nov. 24, 1891
463,635	Lyons, J. E.	Magneto-electric	Nov. 24, 1891
463,639	Mower, S. E.	Electric locomotives	Nov. 24, 1891
463,671	Thomson, E.	Magneto-electric	Nov. 24, 1891
463,691	Samuels, E. J. and Behrendt, F. E.	Railway signals	Nov. 24, 1891
463,693	Storey, I. E.	Regulators	Nov. 24, 1891
463,694	Vail, W. W.	Inductoriums, transformers, stationary	Nov. 24, 1891
463,704	Parcelle, A. L.	Magneto-electric	Nov. 24, 1891
463,711	Reckenzaun, A.	Meters	Nov. 24, 1891
463,715	Conklin, J. I.	Railways, systems, overhead	Nov. 24, 1891
463,720	Hays, W. S.	Lights, arc, gravity feed, clutch	Nov. 24, 1891
463,733	Duncan, W.	Lubricators, loose pulley	Nov. 24, 1891
463,748	Morse, S.	Magneto-electric	Nov. 24, 1891
463,754	Engert, G. N.	Igniting devices, manual	Nov. 24, 1891
463,756	Jacobs, C. A.	Insulators	Nov. 24, 1891
463,760	Sargent, C. E.	Railways, systems, overhead	Nov. 24, 1891
463,761	Thomson, E.	Telegraphy, lightning arresters	Nov. 24, 1891
463,762	Thomson, E.	Cut-outs, mechanical	Nov. 24, 1891
463,763	Voigt, F.	Lights, sockets and keys	Nov. 24, 1891
463,764	Wheeler, G. K.	Cut-outs, thermal	Nov. 24, 1891
463,765	Alton, G. H.	Railways, systems, overhead, trolleys	Nov. 24, 1891
463,766	Blackwell, F. O.	Railways, systems, overhead	Nov. 24, 1891
463,770	Rice, E. W., jr.	Lights, incandescent, special features	Nov. 24, 1891
463,773	Brady, W. R.	Street-light hangers	Nov. 24, 1891
463,785	Connable, F. L. and Harper, T. V.	Medical and surgical, electrodes	Nov. 24, 1891
463,793	Hodgson, E. J. and Stearns, J. W.	Lighting, systems	Nov. 24, 1891
463,802	Leonard, H. W.	Transmission of power	Nov. 24, 1891
463,808	Febr, L. A.	Cut-outs, mechanical	Nov. 24, 1891
463,809	Klotzbach, C.	Conductors	Nov. 24, 1891
463,810	Klotzbach, C.	do	Nov. 24, 1891
463,824	Birdsall, E. T. and Serrell, L. W.	Railways, conductor supports and insulators	Nov. 24, 1891
463,843	McCaskey, J. L.	Time checks	Nov. 24, 1891
463,852	Bradley, C. S.	Telegraphy, duplex	Nov. 24, 1891
463,867	Morgan, R. A. and Bosson, G. C., jr.	Lighting, systems	Nov. 24, 1891
463,879	Waldron, C. F.	Batteries, secondary	Nov. 24, 1891
463,945	Crisp, J. A.	Medical and surgical, body-wear	Nov. 24, 1891
463,955	Newell, H. F.	Insulators	Nov. 24, 1891
463,959	Holty, T. H.	Graphophone, acoustics	Nov. 24, 1891
463,990	Holty, T. H.	Device for phonographs	Nov. 24, 1891
464,001	Atkinson, R. L.	Telegraphy, repeaters	Dec. 1, 1891
464,002	Atwood, L. M. C.	Car brakes	Dec. 1, 1891
464,005	Bradley, J.	Lights, filaments and carbons	Dec. 1, 1891
464,022	Hield, W. J.	Connectors	Dec. 1, 1891
464,025	Kammeyer, C. E.	Galvanometers	Dec. 1, 1891
464,026	Kammeyer, C. E.	Magneto-electric	Dec. 1, 1891
464,027	Kammeyer, C. E.	do	Dec. 1, 1891
464,055	Wright, P.	Heaters	Dec. 1, 1891
464,063	Collom, M. H.	Motors	Dec. 1, 1891
464,067	Foster, M. H.	Coin-controlled apparatus, article delivery, oscillatory	Dec. 1, 1891
464,090	Wilder, R. A.	Railways, systems	Dec. 1, 1891
464,096	Grabau, L.	Electrolysis, fused bath	Dec. 1, 1891
464,097	Grabau, L.	do	Dec. 1, 1891
464,125	Varley, R., jr.	Applications, general	Dec. 1, 1891
464,129	Jones, R. M.	Railways, systems, overhead	Dec. 1, 1891
464,132	Nicholson, W. A.	Lights, arc, gravity feed, gear-clutch	Dec. 1, 1891
464,133	Varley, R., jr.	Telegraphy, relays and sounders	Dec. 1, 1891
464,134	Varley, R., jr.	Cut-outs, mechanical	Dec. 1, 1891
464,136	Holtzer, C. W. and Cabot, G. E.	Regulators	Dec. 1, 1891
464,152	Eikemeyer, R.	Telephones, electric	Dec. 1, 1891
464,156	Hirter, V.	Friction generators	Dec. 1, 1891
464,193	Lundstedt, O. E.	Electro-magnets	Dec. 1, 1891
464,216	Day, St. J. V.	Magneto-electric	Dec. 1, 1891
464,231	Robinson, J. R.	Dental instruments	Dec. 1, 1891
464,244	Dewey, M. W.	Applications, general	Dec. 1, 1891
464,245	Dewey, M. W.	do	Dec. 1, 1891
464,246	Dewey, M. W.	Electric locomotives	Dec. 1, 1891
464,247	Dewey, M. W.	Heaters	Dec. 1, 1891
464,248	Dewey, M. W.	Railways, systems, battery	Dec. 1, 1891
464,253	Peckham, E.	Railway cars	Dec. 1, 1891

No.	NAME.	CLASS.	DATE.
464,256	Redding, H	Time checks	Dec. 1, 1891
464,298	Ellison, R	Towers, telegraph poles	Dec. 1, 1891
464,299	Florian, H. A	Magneto-electric	Dec. 1, 1891
464,342	Mahana, J. B	Railways, systems	Dec. 1, 1891
464,347	Woolley, L. G	Air and gas engines, explosive	Dec. 1, 1891
464,357	Gibson, M. B	Velocipedes	Dec. 1, 1891
464,367	Kimble, S. W	Insulating materials	Dec. 1, 1891
464,368	Kimble, S. W	Connectors	Dec. 1, 1891
464,369	Kimble, S. W	Insulating materials	Dec. 1, 1891
464,370	Kimble, S. W	Railways, systems, overhead, trolleys	Dec. 1, 1891
464,371	Kimble, S. W	Railways, conductor supports and insulators	Dec. 1, 1891
464,411	Adams, T. E	do	Dec. 1, 1891
464,470	Baxter, W., jr	Elevators	Dec. 1, 1891
464,475	Fisher, H. W	Conductors, lead covered	Dec. 1, 1891
11,207	Wollensack, J. F. and Gill, W. E. (Reis.)	Batteries, galvanic	Dec. 1, 1891
464,490	Buzzell, C. E	Railway signals, block systems	Dec. 8, 1891
464,505	Knight, W. H	Railways, systems, conduit	Dec. 8, 1891
464,510	Martin, M	Telegraphy, fire, automatic	Dec. 8, 1891
464,513	Molyneux, B. S	Indicators	Dec. 8, 1891
464,519	Patterson, W. R	Telephones, systems	Dec. 8, 1891
464,529	Stanley, W. jr. and Kelley, J. F	do	Dec. 8, 1891
464,540	Wilder, W. D. and Cobb, W., jr	Meters	Dec. 8, 1891
464,547	Arnold, C. B	Magneto-electric	Dec. 8, 1891
464,548	Arnold, C. B	Cut-outs, thermal	Dec. 8, 1891
464,557	Dixon, L. O	Railways, systems, battery	Dec. 8, 1891
464,587	Phillips, W. H	Railway signals, cab	Dec. 8, 1891
464,595	Thomson, E	Telegraphy, lightning arresters	Dec. 8, 1891
464,643	Zietlow, J. L. W	Conductors, anti-inductive	Dec. 8, 1891
464,655	Parrish, H. A	Railway signals, track instruments	Dec. 8, 1891
464,665	Roberts, I. L	Batteries, secondary	Dec. 8, 1891
464,666	Tesla, N	Motors, alternating	Dec. 8, 1891
464,667	Tesla, N	Telegraphy, condensers	Dec. 8, 1891
464,671	Blathy, O. T	Motors, alternating	Dec. 8, 1891
464,673	Bradford, H. P	Boring and drilling appliances	Dec. 8, 1891
464,676	Morrison, W	Batteries, secondary	Dec. 8, 1891
464,677	Poleschko, A	Inductariums, transformers, stationary	Dec. 8, 1891
464,682	Waterhouse, A. G	Lights, arc, gravity feed, clutch	Dec. 8, 1891
464,683	Waterhouse, A. G	Motors	Dec. 8, 1891
464,691	Anderson, L	Medical and surgical, body-wear	Dec. 8, 1891
464,719	Böhm, L. K	Lights, filaments and carbons	Dec. 8, 1891
464,730	Lester, C	Time alarms	Dec. 8, 1891
464,770	Green, J. J. and Brown, G. C	Insulators	Dec. 8, 1891
464,780	Schlösser, T. A	Railways, systems, overhead, trolleys	Dec. 8, 1891
464,816	Conkling, W. G	Separators	Dec. 8, 1891
464,822	Edison, T. A	Systems of distribution	Dec. 8, 1891
464,897	Robare, L. F	Telegraphy, keys	Dec. 8, 1891
464,933	Bradley, C. S	Reducing and separating aluminium	Dec. 8, 1891
464,948	Wheeler, S. S	Motors	Dec. 8, 1891
464,955	Büsser, O	Railways, systems	Dec. 15, 1891
464,959	Cuttriss, C	Telephones, electric	Dec. 15, 1891
464,979	Millet, G. E	Railway signals, cab, sectional rail	Dec. 15, 1891
464,986	Oehrlé, W. E	Conductors	Dec. 15, 1891
465,034	Verstraete, E	Car-brakes	Dec. 15, 1891
465,039	Baker, J. and Graham, H. S	Lights, incandescent, special features	Dec. 15, 1891
465,046	McLain, W. R	Cut-outs, thermal	Dec. 15, 1891
465,078	Thomson, E	Regulators, alternating	Dec. 15, 1891
465,089	Ries, E. E	Heating, metal working	Dec. 15, 1891
465,093	Erickson, A	Medical and surgical, body-wear	Dec. 15, 1891
465,104	Wiemann, W. P	Magneto-electric	Dec. 15, 1891
465,202	Preston, W. C	Connectors	Dec. 15, 1891
465,206	Rogers, L. H	Batteries, galvanic	Dec. 15, 1891
465,212	Schilling, G. W	Valve controllers	Dec. 15, 1891
465,218	Sprague, F. J. and Pratt, C. R	Rheostats	Dec. 15, 1891
465,233	Billbery, C. O. C	Magneto-electric	Dec. 15, 1891
465,234	Billbery, C. O. C	do	Dec. 15, 1891
465,278	Lawler, J. J	Alarms	Dec. 15, 1891
465,292	Rice, E. W., jr	Motors	Dec. 15, 1891
465,349	Ball, C. M	Separators	Dec. 15, 1891
465,359	Dewey, M. W	Electric locomotives	Dec. 15, 1891
465,360	Diehl, P. and Bennett, E. H., jr	Motors	Dec. 15, 1891
465,361	Diehl, P. and Bennett, E. H., jr	do	Dec. 15, 1891
465,365	Duggan, J. A	Towers, telegraph poles	Dec. 15, 1891
465,369	Grabau, L	Electrolysis, fused bath	Dec. 15, 1891
465,396	Synnestrødt, P	Telegraphy, railway car	Dec. 15, 1891
465,404	Armstrong, C. G	Motors	Dec. 15, 1891
465,423	Boles, W. H	Heaters	Dec. 15, 1891
465,426	Chappell, C. P	Cut-outs, mechanical	Dec. 15, 1891



No.	NAME.	CLASS.	DATE.
465,430	Desant, W. F. Z.	Connectors	Dec. 15, 1891
465,432	Green, G. F.	Railways, systems	Dec. 15, 1891
465,442	Weston, E.	Galvanometers	Dec. 15, 1891
11,210	Groswith, H.	(Reis.) Motors	Dec. 15, 1891
465,444	Barton, H.	Cut-outs, mechanical	Dec. 22, 1891
465,447	Blackwell, F. O.	Railways, conductor supports and insulators	Dec. 22, 1891
465,469	Foster, C. S.	Railways, systems, overhead, trolleys	Dec. 22, 1891
465,470	Foster, H. A.	Shade supports	Dec. 22, 1891
465,501	Synnestvedt, P.	Telegraphy, railway car	Dec. 22, 1891
465,503	Wirt, H. C.	Cut-outs, thermal	Dec. 22, 1891
465,511	Andrews, W. C.	Cut-outs, mechanical, oscillating snap	Dec. 22, 1891
465,512	Andrews, W. S. and Warren, A. K.	Rheostats	Dec. 22, 1891
465,514	Ball, H. P.	Lights, arc, gravity feed, clutch	Dec. 22, 1891
465,516	Berger, O. and Eldridge, H.	Advertising, signs	Dec. 22, 1891
465,525	Hayden, E. S.	Electrolysis, aqueous bath	Dec. 22, 1891
465,548	White, W. H.	Alarms	Dec. 22, 1891
465,564	Johns, H. W.	Conductors	Dec. 22, 1891
465,592	Evans, O. F.	Electric locomotives	Dec. 22, 1891
465,594	La Roche, F. A.	Lighting, systems	Dec. 22, 1891
465,602	Thomson, W. C.	Alarms, burglar	Dec. 22, 1891
465,613	Applegate, W. H.	Railways, systems, closed conduit	Dec. 22, 1891
465,618	Painter, G. E.	Cut-outs, mechanical, oscillating snap	Dec. 22, 1891
465,648	O'Brien, T. W.	Telephones, systems	Dec. 22, 1891
465,655	Dudley, W. J.	Clocks, electric	Dec. 22, 1891
465,665	Howard, W. K., jr.	Street-light hangers	Dec. 22, 1891
465,684	Villart, G. E. and Rondel, V. E.	Lights; incandescent, special features	Dec. 22, 1891
465,685	Waldecker, H. C.	Lights, arc, special features	Dec. 22, 1891
465,767	St. Clair, F.	Indicators	Dec. 22, 1891
465,778	Catchell, C. H.	Telephones, supports	Dec. 22, 1891
465,801	Bradford, C. M.	Fire engines, chemical	Dec. 22, 1891
465,805	Smith, T. C. and Acker, B. D.	Lighting, systems	Dec. 22, 1891
465,806	Sprague, F. J. and O'Shaughnessy, P. F.	Railways, systems, overhead, trolleys	Dec. 22, 1891
465,808	Thury, R.	Magneto-electric	Dec. 22, 1891
465,809	Varley, R., jr.	Telegraphy, relays and sounders	Dec. 22, 1891
465,829	Browne, H. M.	Telegraphy, circuit-closers, thermal	Dec. 29, 1891
465,832	Cassagnes, G. A.	Telegraphy, multiplex	Dec. 29, 1891
465,844	Emmner, J., jr.	Railways, systems, conduit	Dec. 29, 1891
465,853	Hicks, T. H.	Motors, alternating	Dec. 29, 1891
465,854	Hicks, T. H.	Systems of distribution	Dec. 29, 1891
465,855	Hicks, T. H.	Magneto-electric	Dec. 29, 1891
465,866	Lemp, H.	Heating, metal working	Dec. 29, 1891
465,886	Pruyn, H. S.	Railways, conductor supports and insulators	Dec. 29, 1891
465,888	Reed, T. L.	Exercising apparatus	Dec. 29, 1891
465,909	Winters, F. M.	Bells	Dec. 29, 1891
465,949	Roovers, A. W. and A. H.	Medical and surgical, exercising apparatus	Dec. 29, 1891
465,958	Wurts, A.	Telegraphy, lightning arresters	Dec. 29, 1891
465,961	Albanese, G. S.	Insulators	Dec. 29, 1891
465,970	Edison, T. A.	Magneto-electric	Dec. 29, 1891
465,971	Edison, T. A.	Telegraphy, circuits and systems	Dec. 29, 1891
465,973	Edison, T. A.	Magneto-electric	Dec. 29, 1891
465,981	Champion, P. C. E.	Lighting, systems	Dec. 29, 1891
465,983	Fisher, H. W.	Cut-outs, thermal	Dec. 29, 1891
465,989	Chase, H. A.	Telegraphy, fire	Dec. 29, 1891
465,990	Chase, H. A.	do	Dec. 29, 1891
465,991	Cole, F. W.	do	Dec. 29, 1891
465,994	Hicks, T. H.	Magneto-electric	Dec. 29, 1891
465,997	Martratt, G. B.	Cut-outs, mechanical, rotary	Dec. 29, 1891
465,999	Shaw, A. J.	Elevators	Dec. 29, 1891
466,011	Phillips, H.	Pendulums	Dec. 29, 1891
466,028	Baxter, W., jr.	Regulators	Dec. 29, 1891
466,037	Herdman, F. E.	Elevators	Dec. 29, 1891
466,052	Kimball, J. L.	Lights, sockets and keys	Dec. 29, 1891
466,053	Noyes, B. J.	Telegraphy, fire	Dec. 29, 1891
466,058	Erickson, C. A.	Game counters	Dec. 29, 1891
466,063	Colville, F. C.	Annunciators, drop	Dec. 29, 1891
466,087	Weston, E.	Galvanometers	Dec. 29, 1891
466,101	Kerstein, M.	Railways, systems	Dec. 29, 1891
466,131	Angell, E. E.	Heating, metal working	Dec. 29, 1891
466,132	Angell, E. E.	Heaters	Dec. 29, 1891
466,133	Angell, E. E.	do	Dec. 29, 1891
466,138	Morris, H. G. and Salom, P. G.	Batteries, secondary	Dec. 29, 1891
466,159	Dillman, W. C.	Annunciators, drop	Dec. 29, 1891
466,177	Miller, S.	Batteries, galvanic	Dec. 29, 1891
466,180	Morgan, E. H.	Electric locomotives	Dec. 29, 1891
466,196	Stevens, W. A.	Railways, systems, overhead	Dec. 29, 1891
466,212	Atwood, La M. C.	Car-brakes	Dec. 29, 1891
466,244	Kelly, W. J.	Cut-outs, mechanical, sliding	Dec. 29, 1891

No.	NAME	CLASS	DATE.
466,245	Kelley, W. J.	Lighting, systems, hand regulation	Dec. 29, 1891
466,250	Marsh, J. W.	Conductors	Dec. 29, 1891
466,266	Blanchard, G. W.	Heaters	Dec. 29, 1891
466,268	Connor, W. A. and Marsh, J. W.	Conductors	Dec. 29, 1891
466,288	Hinds, J. L.	Lights, sockets and keys	Dec. 29, 1891
466,289	Hinds, J. L.	do	Dec. 29, 1891
466,290	Hinds, J. L.	do	Dec. 29, 1891
466,306	Jacobs, H. E.	Telegraphy, fire	Dec. 29, 1891
466,357	Molitor, C.	Annunciators, drop	Jan. 5, 1892
466,362	Osner, W.	Railways, systems, conduit	Jan. 5, 1892
466,367	Perry, N. W.	Railways, systems, circuits, series	Jan. 5, 1892
466,368	Perry, N. W.	do	Jan. 5, 1892
466,391	Andrews, W. S.	Railways, conductor supports and insulators	Jan. 5, 1892
466,400	Edison, T. A. and Ott, J. T.	Cut-outs, thermal	Jan. 5, 1892
466,427	Rowell, B. C.	Railways, systems, overhead	Jan. 5, 1892
466,447	Smith, R. C.	Elevators	Jan. 5, 1892
466,448	Sprague, F. J.	Magneto-electric	Jan. 5, 1892
466,450	Stout, J. V.	Valve controllers	Jan. 5, 1892
466,460	Edison, T. A.	Electrolysis, fused bath	Jan. 5, 1892
466,471	Tatro, C. P.	Railways, systems, closed conduit	Jan. 5, 1892
466,492	Facer, W. E.	Telegraphy, circuits and systems	Jan. 5, 1892
466,505	Morse, J. S.	Telegraphy, fire, automatic	Jan. 5, 1892
466,508	Painter, G. E.	Cut-outs, electro-magnetic	Jan. 5, 1892
466,509	Painter, G. E.	Lights, incandescent, special features	Jan. 5, 1892
466,510	Painter, G. E.	Lights, sockets and keys	Jan. 5, 1892
466,511	Painter, G. E.	do	Jan. 5, 1892
466,513	Reed, C. J.	Separators	Jan. 5, 1892
466,514	Reed, C. J.	do	Jan. 5, 1892
466,515	Reed, C. J.	do	Jan. 5, 1892
466,518	Von Orth, L.	Clocks, electric	Jan. 5, 1892
466,519	White, H. P.	Railways, track instruments	Jan. 5, 1892
466,539	Kling, P. M.	Electric locomotives	Jan. 5, 1892
466,541	Marvin, H. A.	Transmission of power	Jan. 5, 1892
466,562	Grant, P.	Lights, incandescent	Jan. 5, 1892
466,576	Robbins, C. P.	Globes	Jan. 5, 1892
466,604	Gaynor, T. F.	Telegraphy, fire	Jan. 5, 1892
466,620	Nash, C. E.	Telegraphy, fire, variable signal, dial	Jan. 5, 1892
466,644	Wollensack, J. F.	Telegraphy, circuit closers	Jan. 5, 1892
466,664	Delany, P. B.	Batteries, galvanic	Jan. 5, 1892
466,686	Huguet, C. K.	Meters	Jan. 5, 1892
466,702	Pickernell, F. A.	Telephones, systems, multiple switch board, test	Jan. 5, 1892
466,725	Miltimore, A. E.	Ear trumpets	Jan. 5, 1892
466,726	Norgrove, G. B.	Insulators	Jan. 5, 1892
466,737	Doig, E. M.	Lubricators, loose pulley	Jan. 5, 1892
466,760	Thury, R.	Regulators	Jan. 5, 1892
466,761	Wolton, J. A.	Cut-outs, thermal	Jan. 5, 1892
466,781	Garland, F. M.	Valve-controllers	Jan. 12, 1892
466,784	Harte, W. F.	Annunciators	Jan. 12, 1892
466,787	Holtzer, C.W. and Cabot, G. E.	Galvanometers	Jan. 12, 1892
466,798	Nowotny, J. S.	Batteries, galvanic	Jan. 12, 1892
466,800	Prewitt, W. Q.	Railways, conductor supports and insulators	Jan. 12, 1892
466,802	Rice, E. W., jr.	Cut-outs, mechanical	Jan. 12, 1892
466,807	Sperry, E. A.	Railways, systems, overhead	Jan. 12, 1892
466,818	Wright, C. L.	Camera stands	Jan. 12, 1892
466,820	Beattie, J., jr.	Batteries, galvanic	Jan. 12, 1892
466,825	Gendron, P.	Heating, metal working	Jan. 12, 1892
466,832	Phillips, E. B.	Electric locomotives	Jan. 12, 1892
466,856	Ward, P. and Gregory, E. M.	Projectiles	Jan. 12, 1892
466,858	Wright, J. E.	Telegraphy, printing, multiple wheel	Jan. 12, 1892
466,865	Pierce, M. S., Desisle, L. H., and Oliver, O. C.	Telegraphy, circuit closers, thermal	Jan. 12, 1892
466,870	Heineman, D.	Annunciators	Jan. 12, 1892
466,914	Winkler, C. F.	Electric locomotives	Jan. 12, 1892
466,937	Pfannkuche, G.	Inductariums, transformers, stationary	Jan. 12, 1892
466,953	Brush, C. F.	Galvanometers	Jan. 12, 1892
466,956	Russell, E. P.	Towers, telegraph poles	Jan. 12, 1892
466,972	Bartholomew, I. W.	Magneto-electric	Jan. 12, 1892
466,973	Baxter, W., jr.	Elevators	Jan. 12, 1892
466,981	Kuehnle, J.	Railways, systems, overhead, trolleys	Jan. 12, 1892
467,023	Spittle, G. W.	Cut-outs, electro-magnetic	Jan. 12, 1892
467,048	Palmer, J. H.	Motors	Jan. 12, 1892
467,050	Potter, B. I.	Railways, systems	Jan. 12, 1892
467,073	Zahner, F. J.	Alarms	Jan. 12, 1892
467,075	Appleyard, A. E.	Heaters	Jan. 12, 1892
467,078	Blackwell, F. O.	Rheostats	Jan. 12, 1892
467,085	Decker, P.	Applications, general	Jan. 12, 1892
467,102	Huber, E. and Kneupper, F. G.	Indicators	Jan. 12, 1892



No.	NAME.	CLASS.	DATE.
467,153	Chatard, F. E.	Valve controllers	Jan. 19, 1892
467,160	Dent, R.	Telephones, supports	Jan. 19, 1892
467,169	Hickley, P.	Lights, filaments and carbons	Jan. 19, 1892
467,192	Oits, N. P. and Smith, R. C.	Elevators	Jan. 19, 1892
467,199	Riedel, J.	Lights, arc, positive feed, gear-clutch	Jan. 19, 1892
467,215	White, H. P.	Magneto-electric	Jan. 19, 1892
467,230	Hutchinson, C. T.	Regulators	Jan. 19, 1892
467,233	Lemp, H. and Moody, W. S.	Heaters	Jan. 19, 1892
467,239	Schoenmehl, C. B.	Batteries, galvanic	Jan. 19, 1892
467,240	Schoenmehl, C. B.	do	Jan. 19, 1892
467,243	Walter, H. E.	Car-brakes	Jan. 19, 1892
467,250	Harding, E. R.	Railways, systems, overhead, trolleys	Jan. 19, 1892
467,255	Lemp, H.	Rheostats	Jan. 19, 1892
467,259	Verstraete, E.	Car-brakes	Jan. 19, 1892
467,270	Wilkins, C. H.	Lights, incandescent	Jan. 19, 1892
467,276	Curtiss, J. L.	Lights, special features	Jan. 19, 1892
467,287	Hogan, J. E.	Valve controllers	Jan. 19, 1892
467,318	Thomson, E.	Magneto-electric	Jan. 19, 1892
467,338	Williams, C.	Rheostats	Jan. 19, 1892
467,350	Stalmann, O.	Electrolysis, aqueous bath, application	Jan. 19, 1892
467,358	Rice, E. W., jr.	Regulators	Jan. 19, 1892
467,372	Gendron, F.	Batteries, galvanic	Jan. 19, 1892
467,448	Van Depoele, C. J.	Railways, systems, overhead, trolleys	Jan. 19, 1892
467,449	Van Depoele, C. J.	Motors	Jan. 19, 1892
467,450	Van Depoele, C. J.	Motors, reciprocating	Jan. 19, 1892
467,451	Van Depoele, C. J.	Transmission of power	Jan. 19, 1892
467,465	Holmes, F. S.	Locks, electric	Jan. 19, 1892
467,478	Desant, W. F. Z.	Railway signals, sectional rail	Jan. 19, 1892
467,504	Haight, H. J.	Cut-outs, mechanical	Jan. 26, 1892
467,505	Haight, H. J.	Indicators	Jan. 26, 1892
467,509	Marvin, H. N.	Transmission of power	Jan. 26, 1892
467,510	Marvin, H. N.	do	Jan. 26, 1892
467,511	Matson, D. B.	Lights, arc, special features	Jan. 26, 1892
467,520	Piffard, D. H.	Insulating materials	Jan. 26, 1892
467,523	Roberts, E. P.	Lights, incandescent	Jan. 26, 1892
467,537	Gutmann, L.	Motors	Jan. 26, 1892
467,538	Gutmann, L.	Heaters	Jan. 26, 1892
467,540	Klein, C. J.	Cut-outs, mechanical, rotary	Jan. 26, 1892
467,542	Mailloux, C. O.	Magneto-electric	Jan. 26, 1892
467,543	Mailloux, C. O.	Batteries, secondary, applications	Jan. 26, 1892
467,544	Mailloux, C. O.	do	Jan. 26, 1892
467,545	Mailloux, C. O.	do	Jan. 26, 1892
467,546	Mailloux, C. O.	do	Jan. 26, 1892
467,547	Mailloux, C. O.	do	Jan. 26, 1892
467,551	Bergmann, A. (dec'd)	Valve controllers	Jan. 26, 1892
467,573	Entz, J. B. and Phillips, W. A.	Batteries, secondary	Jan. 26, 1892
467,576	Gutman, H. J.	Lights, incandescent	Jan. 26, 1892
467,581	Myers, F. I.	Railway signals, sectional rail	Jan. 26, 1892
467,583	Simons, L. A. and Roof, G. R.	Railways, systems, overhead, trolleys	Jan. 26, 1892
467,610	Mosher, J. A.	Lights, arc, gravity feed, gear-clutch	Jan. 26, 1892
467,611	Mosher, J. A.	Rheostats	Jan. 26, 1892
467,613	Short, S. H.	do	Jan. 26, 1892
467,645	Richards, F. H.	Separators	Jan. 26, 1892
467,650	Camp, H. B.	Stone and brick setting	Jan. 26, 1892
467,651	Delany, P. B.	Annunciators, time	Jan. 26, 1892
467,656	Scribner, C. E.	Lights, arc, gravity feed, clutch	Jan. 26, 1892
467,669	Cutter, H. H.	Meters	Jan. 26, 1892
467,678	Ayres, R. B.	Station indicators	Jan. 26, 1892
467,679	Boynon, E. M.	Railways, systems, overhead	Jan. 26, 1892
467,699	Hutchinson, W. B.	Railways, systems, closed conduit	Jan. 26, 1892
467,716	Dunn, P.	Lights, sockets and keys	Jan. 26, 1892
467,738	Horton, W. P., jr.	Dental instruments	Jan. 26, 1892
467,748	Ellis, F. A.	Clocks, electric	Jan. 26, 1892
467,752	Howard, H.	Heating, metal working	Jan. 26, 1892
467,773	Rae, F. B.	Regulators	Jan. 26, 1892
467,774	Reuter, C. and Bollmann, G.	Alarms	Jan. 26, 1892
467,875	Lunyen, A.	Telegraphy, circuit closers	Jan. 26, 1892
467,833	Richards, F. H.	Separators	Jan. 26, 1892
467,884	Ayres, R. B.	Station indicators	Jan. 26, 1892
467,891	Neu, G. S.	Conductors, connectors	Jan. 26, 1892
467,897	Perry, N. W.	Railways, systems, circuits, series	Jan. 26, 1892
467,901	Scribner, C. E.	Telephones, systems, multiple switch board, test	Jan. 26, 1892
467,902	Scribner, C. E.	do	Feb. 2, 1892
467,917	Christy, J. A.	Telephones, supports	Feb. 2, 1892
467,919	Clough, A. L.	Cut-outs, electro-magnetic	Feb. 2, 1892
467,924	Darley, J. W.	Motors	Feb. 2, 1892

No.	NAME.	CLASS.	DATE.
467,940	Lee, C. T.	Railways, conductor supports and insulators	Feb. 2, 1892
467,941	Lee, C. T.	Conductors, insulators	Feb. 2, 1892
467,942	Lee, C. T.	Railways, conductor supports and insulators	Feb. 2, 1892
467,958	Slivey, W. L.	Lights, sockets and keys	Feb. 2, 1892
467,969	Eylesby, H. M.	Electric locomotives	Feb. 2, 1892
467,982	Piffard, D. H.	Lights, incandescent	Feb. 2, 1892
467,983	Piffard, D. H.	Lights, sockets and keys	Feb. 2, 1892
467,985	Bacorn, F. W.	Annunciators	Feb. 2, 1892
468,020	Wood, J. J.	Galvanometers	Feb. 2, 1892
468,053	Englund, A. H.	Insulators	Feb. 2, 1892
468,086	Lillard, W. B.	Connectors	Feb. 2, 1892
468,099	Leonard, H. W.	Lighting, systems	Feb. 2, 1892
468,100	Leonard, H. W.	Elevators	Feb. 2, 1892
468,101	Murphy, J. B. (dec'd)	Cut-outs, electro-magnetic	Feb. 2, 1892
468,107	Eaton, H. F.	Telegraphy, fire, variable signal	Feb. 2, 1892
468,108	Hunt, C. W.	do	Feb. 2, 1892
468,119	Thomson, E.	Cut-outs, mechanical	Feb. 2, 1892
468,120	Thomson, E.	Telegraphy, lightning arresters	Feb. 2, 1892
468,121	Thomson, E.	Magneto-electric	Feb. 2, 1892
468,122	Thomson, E.	Lighting, systems	Feb. 2, 1892
468,123	Thomson, E. and Rice, E. W.	do	Feb. 2, 1892
468,125	Wright, A.	Cut-outs, mechanical, oscillating spring	Feb. 2, 1892
468,128	Blackwell, F. O.	Electric locomotives	Feb. 2, 1892
468,148	Bradley, C. S.	Electrolysis, fused bath	Feb. 2, 1892
468,159	Terry, S. M.	Drop lights	Feb. 2, 1892
468,163	Whcless, M.	Railways, systems, circuits, multiple arc	Feb. 2, 1892
468,164	Wheless, M.	do	Feb. 2, 1892
468,165	Wheless, M.	do	Feb. 2, 1892
468,166	Whcless, M.	Railways, systems, conduit, multiple arc	Feb. 2, 1892
468,170	Ebert, W.	Annunciators	Feb. 2, 1892
468,172	Gilman, W. H.	Measuring instruments	Feb. 2, 1892
468,185	Webster, L. J.	Lighting, systems	Feb. 2, 1892
468,186	Beardsley, C. A.	Towers, skeleton	Feb. 2, 1892
468,246	Grissinger, E. A.	Telephones, magnetic	Feb. 2, 1892
468,253	Neuburger, A.	Elevators	Feb. 2, 1892
468,260	Pfannkuche, G.	Regulators	Feb. 2, 1892
468,274	Goodson, G. A.	Electric toys	Feb. 2, 1892
468,281	Cann, E.	Telephones, systems	Feb. 2, 1892
468,293	Coleman, C. J.	Connectors	Feb. 2, 1892
468,314	Bates, C. H.	Railways, systems, closed conduit	Feb. 2, 1892
468,336	Fiske, J. P. B.	Railways, conductor supports and insulators	Feb. 9, 1892
468,338	Goodson, G. A.	Electric toys	Feb. 9, 1892
468,388	Newton, C. O.	Conductors	Feb. 9, 1892
468,414	Parmly, S. P.	Lights, arc, special features	Feb. 9, 1892
468,412	Pfluger, C. A.	do	Feb. 9, 1892
468,413	Pfluger, C. A.	do	Feb. 9, 1892
468,414	Burroughs, W. S.	Time alarms	Feb. 9, 1892
468,426	Mitchell, W.	Heating, pressing and ironing	Feb. 9, 1892
468,416	Dorman, G. E.	Magneto-electric	Feb. 9, 1892
468,440	Fortier, C. L.	Fire engines, stationary	Feb. 9, 1892
468,451	Hunt, J.	Magneto-electric, hand machines	Feb. 9, 1892
468,473	Crane, M. G. and Cole, F. W.	Telegraphy, fire, repeaters	Feb. 9, 1892
468,474	Rohrer, A. L.	Cut-outs, mechanical	Feb. 9, 1892
468,487	Trippie, S. L.	Lighting, systems	Feb. 9, 1892
468,492	Blackwell, F. O.	Electric locomotives	Feb. 9, 1892
468,497	Thomson, E.	Telegraphy, lightning arresters	Feb. 9, 1892
468,500	Görges, J. T. H.	Lighting, systems	Feb. 9, 1892
468,526	Phillips, E. B.	Electric locomotives	Feb. 9, 1892
468,540	Cane, H.	Separators	Feb. 9, 1892
468,575	Ogden, W. J.	Railways, systems, overhead	Feb. 9, 1892
468,585	Vogler, W.	Conductors	Feb. 9, 1892
468,597	Deul, M. A.	Indicators	Feb. 9, 1892
468,599	Ferraris, E.	Separators	Feb. 9, 1892
468,654	Gibbs, G.	Connectors	Feb. 9, 1892
468,686	O'Brian, J. T.	Regulators	Feb. 9, 1892
468,690	Pool, J. G.	do	Feb. 9, 1892
468,697	Schoenberg, R. A.	Pneumatic signals	Feb. 9, 1892
468,700	Sheldon, J. B.	Street light hangers	Feb. 9, 1892
468,706	Southworth, H. W.	Separators	Feb. 9, 1892
468,708	Thomas, C. W.	Railways, systems, overhead	Feb. 9, 1892
468,711	Waterhouse, A. G.	Lights, arc, gravity feed, clutch	Feb. 9, 1892
468,716	Wilson, J. T.	Motors	Feb. 9, 1892
468,741	Cabell, S. G.	Iron ships	Feb. 9, 1892
468,752	Shaw, A. J.	Rheostats	Feb. 9, 1892
468,753	Tirrell, J. P.	Steam valves, throttle	Feb. 9, 1892
468,755	Wentz, W. F.	Telegraphy, circuits and systems	Feb. 9, 1892
468,772	McCarthy, L.	Lights, incandescent, special features	Feb. 9, 1892



No.	NAME.	CLASS.	DATE.
468,773	McCarthy, L.	Lights, incandescent, special features	Feb. 9, 1892
468,775	Etheridge M. V. B.	Printing, rotary	Feb. 9, 1892
468,779	Beebe, J. W.	Railways, systems, overhead, trolleys	Feb. 16, 1892
468,787	Cheaney, F. A.	Railway signals, block systems	Feb. 16, 1892
468,807	Kintner, A. E.	Electric locks	Feb. 16, 1892
468,818	Mosely, W.	Telephones, switch-boards	Feb. 16, 1892
468,880	Sueur, E. A. L.	Electrolysis	Feb. 16, 1892
468,887	Miller, S.	Batteries, galvanic	Feb. 16, 1892
468,903	Smith, R. C.	Elevators	Feb. 16, 1892
468,912	Hunter, R. M.	Railways, systems	Feb. 16, 1892
468,917	Moore, C. E.	Machine brakes	Feb. 16, 1892
468,938	Burton, G. D.	Heaters	Feb. 16, 1892
468,948	Dey, H. E.	Electric locomotives	Feb. 16, 1892
468,449	Edison, T. A.	Railways, systems, converter	Feb. 16, 1892
468,950	Edison, T. A.	Magneto-electric	Feb. 16, 1892
468,953	Lundell, R.	Motors	Feb. 16, 1892
468,955	Mason, J.	Coin-controlled apparatus, induction coils	Feb. 16, 1892
468,959	Sprague, F. J. and O'Shaughnessy, P. F.	Railways, systems, overhead	Feb. 16, 1892
468,970	Briggs, F. H.	Alarms	Feb. 16, 1892
469,041	Dobbie, R. S.	Lights, arc, gravity feed, gear-clutch	Feb. 16, 1892
469,048	Renahan, J. J.	Street light hangers	Feb. 16, 1892
469,050	Weeks, N., jr.	Lights, arc, special features	Feb. 16, 1892
469,080	Deprez, M.	Magneto-electric	Feb. 16, 1892
469,085	Grissinger, E. A. and T.	Telephones, electric	Feb. 16, 1892
469,093	Sawyer, H.	Light, arc, positive feed, gear-clutch	Feb. 16, 1892
469,129	Elieson, C. P.	Batteries, secondary	Feb. 16, 1892
469,135	Godefroy, A. F.	Heaters	Feb. 16, 1892
469,181	Pinkham, C. A.	Telegraphy, circuit closers	Feb. 16, 1892
469,193	Byllesby, H. M.	Magneto-electric	Feb. 16, 1892
469,208	Greenfield, E. T.	Conductors	Feb. 16, 1892
469,220	Thomas, V. A.	Cut-outs, mechanical, oscillating spring	Feb. 16, 1892
469,241	Gritten, W. and Parmley, A.	Conductors	Feb. 23, 1892
469,245	Holman, S. W.	Conductors, anti-inductive	Feb. 23, 1892
469,253	Johnson, A. L.	Lighting, systems	Feb. 23, 1892
469,257	Leber, L. H.	Regulators	Feb. 23, 1892
469,262	Mouson, G. S. and Vogel, C.	Railways, traction, underground	Feb. 23, 1892
469,266	Paze, F. C.	Burglar alarms	Feb. 23, 1892
469,273	Robinson, J.	Telegraphy, dial	Feb. 23, 1892
469,280	Smith, W. S.	Railways, systems, overhead, trolleys	Feb. 23, 1892
469,281	Sohlman, J.	Magneto-electric	Feb. 23, 1892
469,283	Strauss, J. B.	Connectors	Feb. 23, 1892
469,319	Phelps, W. J.	Motors	Feb. 23, 1892
469,347	Graves, W.	Lights, arc, gravity feed, clutch	Feb. 23, 1892
469,349	Kubler, E. G.	Alarms	Feb. 23, 1892
469,353	Bentley, E. M.	Railways, systems, overhead	Feb. 23, 1892
469,361	Watson, R.	Elevators	Feb. 23, 1892
469,362	Boardman, F. R.	Lights, arc and incandescent	Feb. 23, 1892
469,376	Redding, H.	Telegraphy, fire	Feb. 23, 1892
469,408	Nourse, R. C. and Lane, T. W.	Igniting devices, automatic	Feb. 23, 1892
469,424	McConnell, A. C.	Alarms	Feb. 23, 1892
469,428	Waite, C. N.	Batteries, galvanic	Feb. 23, 1892
469,438	Myers, F. I.	Railway signals, sectional rail	Feb. 23, 1892
469,441	Wightman, M. J.	Transmission of power	Feb. 23, 1892
469,454	Rogers, A. J.	Electrolysis, fused bath	Feb. 23, 1892
469,460	Austin, N. E.	Elevated carriers	Feb. 23, 1892
469,462	Beers, I. F. and F. C.	Valve controllers	Feb. 23, 1892
469,469	Greenfield, E. T.	Conductors	Feb. 23, 1892
469,470	Greenfield, F. T.	do	Feb. 23, 1892
469,471	Hailstone, W. W.	Valve controllers	Feb. 23, 1892
469,515	Von Dolivo-Dobrowolsky, M.	Transmission of power	Feb. 23, 1892
469,474	Hayes, H. V.	Telephones, supports	Feb. 23, 1892
469,475	Hayes, H. V. and Stone, J. S.	Conductors, anti-inductive	Feb. 23, 1892
469,481	Lightbody, C.	Water-closet attachments	Feb. 23, 1892
469,482	Manchester, F. H.	Lights, incandescent	Feb. 23, 1892
469,483	Manchester, F. H.	do	Feb. 23, 1892
469,486	Moses, P.	Lights, filaments and carbons	Feb. 23, 1892
469,522	Hayes, H. V.	Conductors	Feb. 23, 1892
469,538	Buchanan, A. D.	Electrolysis, aqueous bath apparatus	Feb. 23, 1892
469,649	Gray, W.	Coin-controlled apparatus	Feb. 23, 1892
469,650	Gray, W.	do	Feb. 23, 1892
469,652	Jennings, W. C.	Lighting, systems	Feb. 23, 1892
469,656	McElroy, J. T.	Lighting, systems, car	Feb. 23, 1892
469,669	Tirrell, J. P.	Steam valves, throttle	Feb. 23, 1892
469,515	Von Dolivo-Dobrowolsky, M.	Transmission of power	Feb. 23, 1892
469,670	Aldrich, T. H.	Metalurgy, blow pipes	Mar. 1, 1892
469,672	Ayres, A. D.	Electro-magnetic	Mar. 1, 1892
469,706	Lockwood, W. C.	Telephones, electric	Mar. 1, 1892

No.	NAME.	CLASS.	DATE.
469,712	Parcelle, A. L.	Motors	Mar. 1, 1892
469,723	Robbins, E. P.	Conductors, underground	Mar. 1, 1892
469,725	Sperry, E. A.	Magneto-electric	Mar. 1, 1892
469,745	Loomis, F. F.	Telegraphy, fire, non-interfering	Mar. 1, 1892
469,750	Shepard, L. A. and Lang, F. P.	Railways, systems, overhead, trolleys	Mar. 1, 1892
469,765	Wilson, C. H.	Conductors, underground	Mar. 1, 1892
469,782	Goulding, J. C.	Telephones, supports	Mar. 1, 1892
469,792	Mitchell, W.	Heating, pressing and ironing	Mar. 1, 1892
469,796	Shults, J. W.	Medical and surgical, body-wear	Mar. 1, 1892
469,797	Shults, J. W.	do	Mar. 1, 1892
469,799	Wilson, T. L.	Electric locomotives	Mar. 1, 1892
469,800	Wood, J. J.	Meters	Mar. 1, 1892
469,802	Jungbauer, J.	Time alarms	Mar. 1, 1892
469,806	Jenney, C. D.	Magneto-electric	Mar. 1, 1892
469,809	Stanley, W., jr	Systems of distribution	Mar. 1, 1892
469,828	Waller, J. E. and Manville, E.	Railways, systems, conduit	Mar. 1, 1892
469,856	Hurd, J. B.	Telegraphy, circuits and systems	Mar. 1, 1892
469,861	Love, J. C.	Railways, systems, overhead, trolleys	Mar. 1, 1892
469,862	Lundell, R.	Magneto-electric	Mar. 1, 1892
469,865	O'Brien, T. W.	Telephones, systems	Mar. 1, 1892
469,873	Scribner, C. E. and Warnek, E. P.	Lighting, systems, car	Mar. 1, 1892
469,895	Deays, C.	Lights, incandescent, special features	Mar. 1, 1892
469,899	Morgan, W. H.	Railways, systems, overhead, trolleys	Mar. 1, 1892
469,905	North, P.	Firearms, ball traps	Mar. 1, 1892
469,917	Eickemeyer, R.	Magneto-electric	Mar. 1, 1892
469,940	Hammond, C. N.	Insulators	Mar. 1, 1892
469,944	Johnson, E. H.	Gearing	Mar. 1, 1892
469,949	Ritter, J. J.	Heating, soldering	Mar. 1, 1892
469,995	Dunbar, F. W.	Annunciators, drop systems	Mar. 1, 1892
470,008	Putman, R. C.	Lights, incandescent, special features	Mar. 1, 1892
470,013	Scott, C. F. and Wurts, A.	Telegraphy, lightning arresters	Mar. 1, 1892
470,014	Scott, C. F. and Wurts, A.	Cut-outs, thermal	Mar. 1, 1892
470,038	Coffin, C. L.	Metal working, heating	Mar. 1, 1892
470,057	Kintzing, R. C.	Magneto-electric	Mar. 1, 1892
470,073	Ortell, E.	Batteries, galvanic	Mar. 1, 1892
470,080	Sisson, H. D.	Lights, incandescent, special features	Mar. 1, 1892
470,095	Atwood, La M. C.	Motors, rotary	Mar. 1, 1892
470,123	Harris, H. I.	Batteries, galvanic	Mar. 1, 1892
470,129	Holloway, W., jr	Railway signals, cab, sectional rail	Mar. 1, 1892
470,143	Kilbourn, W. H.	Valve controllers	Mar. 1, 1892
470,155	Holson, A. B.	Applications, general	Mar. 1, 1892
470,158	Sturgeon, C. J.	Elevators	Mar. 1, 1892
470,161	Wurts, A.	Cut-outs, electro-magnetic	Mar. 1, 1892
470,194	Hostord, H. H.	Magneto-electric	Mar. 8, 1892
470,199	Kennedy, R.	Transmission of power	Mar. 8, 1892
470,204	Weston, G. R. and A. W.	Cut-outs, thermal	Mar. 8, 1892
470,217	Stephens, G.	Magneto-electric	Mar. 8, 1892
470,221	Thomson, E.	Railways, systems, overhead	Mar. 8, 1892
470,231	Amet, E. H.	Telegraphy, fire, alarms and extinguishers	Mar. 8, 1892
470,233	Caldwell, H. A.	Cloth cutting machines	Mar. 8, 1892
470,237	Freeman, C. A.	Conductors, underground	Mar. 8, 1892
470,256	Pinkham, H. A.	Igniting devices, manual	Mar. 8, 1892
470,260	Riatti, V.	Batteries, galvanic	Mar. 8, 1892
470,294	Feldkamp, F. A.	Music, electrical actions	Mar. 8, 1892
470,329	Hultman, C. A. W.	Conductors, underground	Mar. 8, 1892
470,340	Weston, E.	Galvanometers	Mar. 8, 1892
470,341	Weston, E.	do	Mar. 8, 1892
470,356	Winton, H. D.	Railways, conductor supports and insulators	Mar. 8, 1892
470,372	Delano, C. H.	Telegraphy, circuit closers	Mar. 8, 1892
470,382	Kerstein, M.	Lighting, systems	Mar. 8, 1892
470,402	Ries, E. E. and Horry, W. S.	Lights, sockets and keys	Mar. 8, 1892
470,417	Andrews, W. S. and Ball, H. P.	Railways, conductor supports and insulators	Mar. 8, 1892
470,418	Capek, J. V.	Heaters	Mar. 8, 1892
470,419	Capek, J. V.	do	Mar. 8, 1892
470,425	Grumbacher, F. M.	Metalloids	Mar. 8, 1892
470,428	Hassan, M. W.	Railways, systems, telpher	Mar. 8, 1892
470,441	Olan, J. W. T.	Meters	Mar. 8, 1892
470,455	Thompson, C. T. and Sanders, R. H.	Heaters, separators	Mar. 8, 1892
470,456	Thompson, C. T. and Sanders, R. H.	do	Mar. 8, 1892
470,471	Carey, A. C.	Lights, incandescent	Mar. 8, 1892
470,478	Day, W. G.	Telegraphy, fire, automatic	Mar. 8, 1892
470,498	Mader, F. W.	Games and toys	Mar. 8, 1892
470,505	Redmond, J.	Car brakes	Mar. 8, 1892
470,514	Simpson, H.	Conductors, lightning rods	Mar. 8, 1892
470,516	Sperry, E. A.	Electric locomotives	Mar. 8, 1892
470,521	Van Depoele, C. J.	Regulators	Mar. 8, 1892
470,552	Davis, J. H.	Batteries, galvanic	Mar. 8, 1892



No.	NAME.	CLASS.	DATE.
470,557	Dyer, C. M	Telegraphy, relays and sounders	Mar. 8, 1892
470,566	Hill, T	Metal working, heating	Mar. 8, 1892
470,596	Price, G. W	Telegraphy, circuit closers	Mar. 8, 1892
470,608	Wardhough, R. E	Dust collectors, rotating	Mar. 8, 1892
470,627	Hollingsworth, S. P	Electric locomotives	Mar. 8, 1892
470,634	West, W. A	Telephones, electric	Mar. 8, 1892
470,638	Dobbie, R. S	Lights, arc, special features	Mar. 8, 1892
470,654	Bentley, E. M	Railways, systems, conduit	Mar. 15, 1892
470,656	Blackwell, F. O	Electric locomotives	Mar. 15, 1892
470,657	Blackwell, F. O	Railways, systems, conduit	Mar. 15, 1892
470,666	Firman, L. B	Telegraphy, fire	Mar. 15, 1892
470,667	Firman, L. B	do	Mar. 15, 1892
470,697	Morse, C. H	Cut-outs, electro-magnetic	Mar. 15, 1892
470,701	Parker, G. F. and Crapo, C. E	Batteries, secondary	Mar. 15, 1892
470,721	Thomson, E	Telegraphy, lightning arresters	Mar. 15, 1892
470,722	Tregoning, E	Lighting, systems	Mar. 15, 1892
470,736	Bacon, G. M	Telegraphy, lightning arresters	Mar. 15, 1892
470,748	Deacon, S	Cut-outs, mechanical	Mar. 15, 1892
470,749	Dorman, G. E	Magneto-electric	Mar. 15, 1892
470,752	Fowler, W	Alarms	Mar. 15, 1892
470,766	Pfluger, C. A	Lights, arc, special features	Mar. 15, 1892
470,768	Silkman, E. J	Telegraphy, printing, wheel	Mar. 15, 1892
470,772	Wurts, A	Telegraphy, lightning arresters	Mar. 15, 1892
470,773	Wurts, A	do	Mar. 15, 1892
470,774	Wurts, A	do	Mar. 15, 1892
470,784	Elkins, W. H	Regulators	Mar. 15, 1892
470,785	Elkins, W. H	do	Mar. 15, 1892
470,786	Gray, S. W	Telephones, calls	Mar. 15, 1892
470,790	Moore, H. and Jarrard, O. O	Cut-outs, mechanical	Mar. 15, 1892
470,792	Root, F. H	Batteries, galvanic	Mar. 15, 1892
470,793	Sellner, L	Indicators	Mar. 15, 1892
470,806	Kinsman, F. E	Railway signals, cab, sectional rail	Mar. 15, 1892
470,810	Lucas, W. and Garrett, T. A	Time checks	Mar. 15, 1892
470,813	Wilson, A. J	Railway signals, sectional rail	Mar. 15, 1892
470,817	Blackwell, F. O	Electric locomotives	Mar. 15, 1892
470,820	Garland, W. H	Connectors	Mar. 15, 1892
470,821	Gosman, H	Time checks	Mar. 15, 1892
470,831	Brintnell, A. H	Telegraphy, fire, automatic	Mar. 15, 1892
470,844	Blackwell, F. O	Railways, conductor supports and insulators	Mar. 15, 1892
470,865	Deprez, M. and Carpenter, J	Systems of distribution	Mar. 15, 1892
470,883	Vanstone, S	Conductors	Mar. 15, 1892
470,922	Edison, T. A	Lights, filaments and carbons	Mar. 15, 1892
470,923	Edison, T. A	Railway signals	Mar. 15, 1892
470,924	Edison, T. A	Conductors	Mar. 15, 1892
470,925	Edison, T. A	Lights, filaments and carbons	Mar. 15, 1892
470,926	Edison, T. A	Magneto-electric	Mar. 15, 1892
470,927	Edison, T. A	Gearing belt	Mar. 15, 1892
470,928	Edison, T. A	Magneto-electric	Mar. 15, 1892
470,929	Edison, T. A	Separators	Mar. 15, 1892
470,930	Edison, T. A	Magneto-electric	Mar. 15, 1892
470,942	Markhof, L. M. V	Ordnance, electric appliances	Mar. 15, 1892
470,946	Munsie, J. T	Conductors, underground	Mar. 15, 1892
470,994	Draper, D	Telegraphy, circuit closers	Mar. 15, 1892
471,053	Henry, A. J	Coin-controlled apparatus, article delivery, rotary	Mar. 15, 1892
471,063	Smith, R. C	Elevators	Mar. 15, 1892
471,064	Smith, R. C	do	Mar. 15, 1892
471,096	Briggs, O. P.	Railways, conductor supports and insulators	Mar. 22, 1892
471,100	Coyle, A. M	Elevators	Mar. 22, 1892
471,130	Martin, M.	Telegraphy, circuit closers, thermal	Mar. 22, 1892
471,151	Sperry, E. A	Railways, conductor supports and insulators	Mar. 22, 1892
471,155	Thomson, E	Motors, alternating	Mar. 22, 1892
471,190	Pfluger, C. A	Lights, arc, special features	Mar. 22, 1892
471,206	Wood, M. M	Railways, systems, overhead, trolleys	Mar. 22, 1892
471,210	Dickinson, C. S	Clock striking	Mar. 22, 1892
471,230	Wiley, E. C	Railway signals, track instruments	Mar. 22, 1892
471,234	Dewar, H	Lights, arc, gravity feed, clutch	Mar. 22, 1892
471,237	Gibbs, J. S	Cut-outs, mechanical, oscillating snap	Mar. 22, 1892
471,242	De Meritens, A	Metal working, heating	Mar. 22, 1892
471,271	Metzger, A	Cut-outs, mechanical	Mar. 22, 1892
471,296	Turney, E. T	Railway signals, cab	Mar. 22, 1892
471,302	Marx, J	Cut-outs, thermal	Mar. 22, 1892
471,310	Gwodeff, E	Anti-induction devices	Mar. 22, 1892
471,311	Kerekes, P	Alarms	Mar. 22, 1892
471,351	Evans, D. N	Steam heaters	Mar. 22, 1892
471,352	Ferdinand, A. B	Telephones, systems, intermediate sub-station	Mar. 22, 1892
471,371	Arthur, J.	Theater appliances	Mar. 22, 1892

No.	NAME.	CLASS.	DATE.
471,375	Blackwell, F. O	Railways, systems, conduit	Mar. 22, 1892
471,409	Wilson, A. J	Railway signals, sectional rail	Mar. 22, 1892
471,410	Wilson, A. J	do	Mar. 22, 1892
471,447	Usher, E. P	Railways, systems, batteries	Mar. 22, 1892
471,491	McTighe, T. J	Railways, conductor supports and insulators	Mar. 22, 1892
471,525	Carlton, J. J. and Johnston, H. L	Railway signals, block system	Mar. 22, 1892
471,526	Libbey, H. W	Lights, filaments and carbons	Mar. 22, 1892
471,527	Madden, A. F	Metal founding	Mar. 22, 1892
471,534	Chase, H. A	Telegraphy, fire, variable signal dial	Mar. 29, 1892
471,535	Christy, J. A. and Baldwin, E. J	Telephones, details	Mar. 29, 1892
471,538	Donaldson, W. W. and Macrae, R.	Batteries, secondary	Mar. 29, 1892
471,543	Goss, W. C	Railways, systems, conduit	Mar. 29, 1892
471,549	Hills, J. E	Telephones, supports	Mar. 29, 1892
471,576	Smith, S. F	Lights, incandescent	Mar. 29, 1892
471,587	Williams, J. B	Conductors	Mar. 29, 1892
471,588	Williams, J. B	do	Mar. 29, 1892
471,590	Winkler, C. F	Batteries, secondary	Mar. 29, 1892
471,591	Winkler, C. F	do	Mar. 29, 1892
471,592	Winkler, C. F	do	Mar. 29, 1892
471,612	Hubbell, H.	Cut-outs, mechanical	Mar. 29, 1892
471,625	Smith, R. H	Connectors	Mar. 29, 1892
471,645	Klein, C. J	Lights, sockets and keys	Mar. 29, 1892
471,686	Perry, W. H.	Annunciators	Mar. 29, 1892
471,691	Atkinson, C. W. and L. B	Magneto-electric	Mar. 29, 1892
471,693	Golden, W. T. and Atkinson, L. B	do	Mar. 29, 1892
471,725	Wällgren, E. T	Steam engines, speed governors, marine	Mar. 29, 1892
471,730	Dillon, T	Lights, arc, special features	Mar. 29, 1892
471,732	Goelst, J. H	Lights, incandescent, special features	Mar. 29, 1892
471,745	Howard, J. H	Telephones, calls	Mar. 29, 1892
471,759	Huntress, J. H	Towers, skeleton	Mar. 29, 1892
471,760	Perkins, C. G	Cut-outs, mechanical	Mar. 29, 1892
471,790	Hassan, M. W	Railways, systems, telpher	Mar. 29, 1892
471,792	Hirsh, R	Magneto-electric	Mar. 29, 1892
471,809	Casperson, C. A	Applications, general	Mar. 29, 1892
471,819	Hussey, C. A	Magneto-electric	Mar. 29, 1892
471,837	Walsh, J. J	Street-light hangers	Mar. 29, 1892
471,950	Bonis, H	Medical and surgical, electrodes	Mar. 29, 1892
471,913	Thompson, J. G	Electric locks	Mar. 29, 1892
471,929	Woolley, L. G	Telegraphy, fire, automatic	Mar. 29, 1892
471,945	Burnley, W	Batteries, galvanic	Mar. 29, 1892
471,947	Callahan, F. C	Telegraphy, fire, engine-house apparatus	Mar. 29, 1892
471,968	Gallagher, J	Street-light hangers	Mar. 29, 1892
471,986	Watson, N. M	Annunciators, step-by-step	Mar. 29, 1892
471,987	Watson, N. M	Annunciators, drop systems	Mar. 29, 1892
471,990	Daily, J. W	Lights, incandescent, special features	Mar. 29, 1892
471,993	Gibbs, J. S	Cut-outs, mechanical, sliding	Mar. 29, 1892
471,997	Manship, E. A	Cut-outs, electro-magnetic	Mar. 29, 1892
471,999	Nash, N. and Eddy, G. A	Valve controllers	Mar. 29, 1892
472,019	Ohmart, E. E	Music, electric actions	Mar. 29, 1892
472,026	Bergmann, S. and Scott, G. A	Galvanometers	Apr. 5, 1892
472,027	Bergmann, S. and Scott, G. A	Cut-outs, mechanical, rotary	Apr. 5, 1892
472,035	Cushman, C. B. and Canfield, H. G	Measuring instruments	Apr. 5, 1892
472,037	Dickerson, E. N	Batteries, thermal	Apr. 5, 1892
472,055	Howard, H	Metal working, heating	Apr. 5, 1892
472,062	Masury, J. R	Rheostats	Apr. 5, 1892
472,064	Mosher, J. A	Lights, arc, gravity feed, clutch	Apr. 5, 1892
472,084	Thum, M.	Lighting, systems	Apr. 5, 1892
472,124	Jaeger, C. L	Measuring instruments	Apr. 5, 1892
472,135	Miller, E. G	Telegraphy, lightning arresters	Apr. 5, 1892
472,169	Kato, J. J. and Rhodes, T. H	Telephones, systems, toll	Apr. 5, 1892
472,193	Marshal, W	Systems of distribution	Apr. 5, 1892
472,207	Curtis, F. G	Marine propulsion	Apr. 5, 1892
472,220	Luscomb, H. H	Railways, conductor supports and insulators	Apr. 5, 1892
472,237	Van Hovenbergh, H	Telegraphy, printing, wheel	Apr. 5, 1892
472,243	Acheson, E. G	Telephones, electric	Apr. 5, 1892
472,261	Gülcher, R. J	Batteries, thermal	Apr. 5, 1892
472,265	Kelly, J. F	Meters	Apr. 5, 1892
472,274	Rushmore, S. W	Lights, arc, gravity feed, gear-clutch	Apr. 5, 1892
472,283	Wright, P	Motors	Apr. 5, 1892
472,326	Anderson, F. A., L. G. H., and H.	Paper manufactures	Apr. 5, 1892
472,329	Blanchard, G. W	Car brakes	Apr. 5, 1892
472,346	Foster, H. A	Lighting, systems	Apr. 5, 1892
472,352	Hill, L	Insulating materials	Apr. 5, 1892
472,359	Jaggard, R. W	Railway signals, block systems	Apr. 5, 1892
472,379	Marshall, W	Systems of distribution	Apr. 5, 1892
472,417	Wilson, E. L	Coin-controlled apparatus	Apr. 5, 1892
472,435	Coffman, J. B	Magneto-electric	Apr. 5, 1892



No.	NAME.	CLASS.	DATE.
472,439	Dillman, W. C	Annunciators, drop	Apr. 5, 1892
472,440	Dillman, W. C	do	Apr. 5, 1892
472,444	Fish, J	Stone working, drills	Apr. 5, 1892
472,447	Tyfe, J. C	Railways, systems, closed conduit	Apr. 5, 1892
472,453	Guerne, C. E. and Martin, G. H	Music, electric actions	Apr. 5, 1892
472,461	Lundstedt, O. E	Valve controllers	Apr. 5, 1892
472,479	Hagen, A. A	Elevators, hatchways	Apr. 5, 1892
472,480	Hofmann, E	Lights, arc, gravity feed, clutch	Apr. 5, 1892
472,494	Caughy, J. H	Time alarms	Apr. 5, 1892
472,500	Henderson, J. W	Railway signals	Apr. 5, 1892
21,445	Weston, E (Reis.)	Case for electrical measuring instruments	Apr. 5, 1892
21,446	Weston, E (Reis.)	do	Apr. 5, 1892
472,529	Doren, D	Insulators	Apr. 12, 1892
472,579	Lundstedt, A. E	Valve controllers	Apr. 12, 1892
472,596	Wood, M. M	Railways, conductor supports and insulators	Apr. 12, 1892
472,610	Stanley, L. T	Cut-outs, mechanical	Apr. 12, 1892
472,611	Stanley, L. T	Lights, incandescent, special features	Apr. 12, 1892
472,617	Fiske, B. A	Distance instruments	Apr. 12, 1892
472,623	Lockwood, J. M	Lighting, systems	Apr. 12, 1892
472,628	Pyke, L. S. M. and Barnett, H. S	Magneto-electric	Apr. 12, 1892
472,634	Burton, G. D	Heating, metal working	Apr. 12, 1892
472,643	Patterson, W. R	Conductors	Apr. 12, 1892
472,688	Bockhaus, A	Telegraphy, circuit closers, thermal	Apr. 12, 1892
472,691	Benjamin, G. H	Coating with metal	Apr. 12, 1892
472,708	Hunter, R. M	Regulators	Apr. 12, 1892
472,721	Ward, B. B	Head lights	Apr. 12, 1892
472,747	Ball, R. E	Lights, arc, gravity feed, clutch	Apr. 12, 1892
472,759	Lundstedt, O. E	Valve controllers	Apr. 12, 1892
472,772	Seely, J. A. and Scribner, C. E	Telephones, systems	Apr. 12, 1892
472,784	Brown, C. D	Lighting, systems	Apr. 12, 1892
472,800	Baillard, G. C	Lights, sockets and keys	Apr. 12, 1892
472,801	Baillard, G. C	do	Apr. 12, 1892
472,806	Henneberg, H. O	Telephones, electric	Apr. 12, 1892
472,810	Phillipsborn, H. and Reickel, W	Railways, conductor supports and insulators	Apr. 12, 1892
472,909	Pratt, C. R	Elevators	Apr. 12, 1892
472,912	Spiegel, W. G	Magic lanterns	Apr. 12, 1892
472,933	O'Connor, T. F	Conductors	Apr. 12, 1892
472,935	Pfuger, C. A	Lights, arc, special features	Apr. 12, 1892
472,943	Donnan, G. E	Magneto-electric	Apr. 12, 1892
472,947	Goodridge, W. M	Telephones, switch-boards	Apr. 12, 1892
472,953	Pickett, F. C	Railways, conductor supports and insulators	Apr. 12, 1892
472,956	Scribner, C. E	Telephones, systems	Apr. 12, 1892
472,968	Bradley, S. R	Electrodes	Apr. 12, 1892
472,982	Carll, C. W. and Phillips, J. W	Railways, systems, conduit	Apr. 19, 1892
472,983	Chase, H. A	Telegraphy, fire, variable signal, dial	Apr. 19, 1892
473,003	Howard, H	Metal working, heating	Apr. 19, 1892
473,024	Selden, C	Telegraphy, fire	Apr. 19, 1892
473,044	Wilson, C. H	Conductors, underground	Apr. 19, 1892
473,045	Wood, M. M	Telegraphy, lightning arresters	Apr. 19, 1892
473,061	Crockett, C. H. and Allen, C. C	Locks, electric	Apr. 19, 1892
473,066	Elliott, S. G	Amalgamators, mercury	Apr. 19, 1892
473,076	Patin, O	Lights, arc, gravity feed, gear-clutch	Apr. 19, 1892
473,077	Pepper, D., jr	Magneto-electric	Apr. 19, 1892
473,078	Pepper, D., jr	do	Apr. 19, 1892
473,089	Scribner, C. E	Telephones, systems	Apr. 19, 1892
473,105	Atkins, G. J	Amalgamators, mercury	Apr. 19, 1892
473,117	Hérault, P	Electrolysis, fused bath	Apr. 19, 1892
473,118	Hérault, P	do	Apr. 19, 1892
473,121	Lane, T. W	Annunciators, drop	Apr. 19, 1892
473,123	Lipe, C. E	Wire working, winding	Apr. 19, 1892
473,132	Soden, F. H	Cut-outs, mechanical	Apr. 19, 1892
473,133	Soden, F. H	Medical and surgical, body-wear	Apr. 19, 1892
473,134	Soden, F. H	Cut-outs, mechanical	Apr. 19, 1892
473,146	Dey, H. E	Batteries, secondary	Apr. 19, 1892
473,147	Dey, H. E	do	Apr. 19, 1892
473,158	Imeson, T., Tibbetts, L. I. and Kellogg, L. F	Railways, conductor supports and insulators	Apr. 19, 1892
473,174	Haight, H. I	Annunciators, step-by-step	Apr. 19, 1892
473,186	Choate, P. C	Electrolysis, aqueous bath	Apr. 19, 1892
473,190	Jackson, U. S	Railway signals, block	Apr. 19, 1892
473,195	Meyer, G	Magneto-electric	Apr. 19, 1892
473,203	Carey, A. C	Lights, incandescent	Apr. 19, 1892
473,209	Carey, A. C	Rheostats	Apr. 19, 1892
473,222	Hall, R. J	Ship's logs	Apr. 19, 1892
473,223	Johnson, E. H	Cut-outs, mechanical, oscillating snap	Apr. 19, 1892
473,229	Hers, E. C	Telephones, details	Apr. 19, 1892
473,236	Reed, C. J	Type-writing machines	Apr. 19, 1892
473,237	Reed, C. J	do	Apr. 19, 1892



No.	NAME.	CLASS.	DATE.
473,240	Leavey, G. F.	Shade supports	Apr. 19, 1892
473,253	Dewey, M. W.	Railways, systems, converter	Apr. 19, 1892
473,256	Hess, E. C.	Telephones, details	Apr. 19, 1892
473,267	Sawyer, W. H.	Conductors, anti-inductive	Apr. 19, 1892
473,282	Walley, J. P.	Cut-outs, electro-magnetic	Apr. 19, 1892
473,283	Adams, T. E.	Lights, arc, gravity feed, clutch	Apr. 19, 1892
473,288	Brosington, J. M.	Railway signals, cab	Apr. 19, 1892
473,341	Phillips, W. A.	Speed measures	Apr. 19, 1892
473,351	Sawyer, W. H.	Conductors, anti-inductive	Apr. 19, 1892
473,352	Sawyer, W. H.	do	Apr. 19, 1892
473,353	Sawyer, W. H.	do	Apr. 19, 1892
473,361	Short, S. H.	Railways, systems, circuits, multiple arc	Apr. 19, 1892
473,362	Short, S. H.	Railways, systems, overhead	Apr. 19, 1892
473,363	Short, S. H.	Magneto-electric	Apr. 19, 1892
473,364	Short, S. H.	do	Apr. 19, 1892
473,365	Short, S. H.	Electric locomotives	Apr. 19, 1892
473,366	Short, S. H.	Magneto-electric	Apr. 19, 1892
473,367	Short, S. H.	do	Apr. 19, 1892
473,368	Short, S. H.	Electric locomotives	Apr. 19, 1892
473,373	Arnold, C. R.	Lights, sockets and keys	Apr. 19, 1892
473,378	Brooks, J. C.	Weaving, stopping, weft stop machine	Apr. 19, 1892
473,386	Ernley, J. E.	Batteries, galvanic	Apr. 19, 1892
473,393	Hérault, P. L. T.	Electrolysis, fused bath	Apr. 19, 1892
473,435	Warner, E. P.	Cut-outs, mechanical	Apr. 19, 1892
473,463	Howard, J. H.	Batteries, galvanic	Apr. 26, 1892
473,479	Delano, C. H.	Telegraphy, circuit closers	Apr. 26, 1892
473,504	Hitchcock, H. K.	Cut-outs, mechanical, sliding	Apr. 26, 1892
473,514	Lemp, H.	Telegraphy, lightning arresters	Apr. 26, 1892
473,532	Taintor, G.	Telephones, systems	Apr. 26, 1892
473,536	Ward, B. B.	Lights, arc, gravity feed, gear-clutch	Apr. 26, 1892
473,538	Weston, E.	Galvanometers	Apr. 26, 1892
473,539	Weston, E.	do	Apr. 26, 1892
473,547	Decker, W.	Magneto-electric	Apr. 26, 1892
473,567	Curtis, C. G.	do	Apr. 26, 1892
473,568	Curtis, C. G.	do	Apr. 26, 1892
473,594	Thum, M.	Lighting, systems	Apr. 26, 1892
473,595	Thum, M.	Cut-outs, mechanical	Apr. 26, 1892
473,614	Corporan, C. E.	Railway signals, cab, sectional rail	Apr. 26, 1892
473,618	Eickemeyer, R.	Magneto-electric	Apr. 26, 1892
473,619	Eickemeyer, R.	do	Apr. 26, 1892
473,628	Howes, A. P.	Fire engines, stationary	Apr. 26, 1892
473,637	McElroy, J. F.	Connectors	Apr. 26, 1892
473,661	Fitz-Gerald, J.	Lights, incandescent, special features	Apr. 26, 1892
473,674	Short, S. H.	Electric locomotives	Apr. 26, 1892
473,693	Conklin, J. J.	do	Apr. 26, 1892
473,699	Goodhue, C. F.	Valve controllers	Apr. 26, 1892
473,713	Rueter, H. A.	Conductors	Apr. 26, 1892
473,717	Varley, R., jr	Telegraphy, circuit closers	Apr. 26, 1892
473,820	Brown, L. L.	Applications, general	Apr. 26, 1892
473,832	Dunn, L.	Telegraphy, railway car	Apr. 26, 1892
473,841	Hulin, L.	Lights, filaments and carbons	Apr. 26, 1892
473,848	Mayer, J. B.	Telephones, switch-boards	Apr. 26, 1892
473,866	Bradley, C. S.	Electrolysis, fused bath	Apr. 26, 1892
473,871	Gardner, F.	Railways, syst ems, battery	Apr. 26, 1892
11,238	Roberts, I. L.	Batteries, secondary	Apr. 26, 1892
473,911	Carty, J. J.	Telephones, systems	May 3, 1892
473,929	Horford, H. H.	Motors, reciprocating	May 3, 1892
473,932	Kintner, C. J.	Lighting, systems	May 3, 1892
473,955	Pfuger, C. A.	Lights, arc, gravity feed, clutch	May 3, 1892
473,956	Pfuger, C. A.	do	May 3, 1892
473,960	Reckenzaun, A.	Motors	May 3, 1892
473,966	Scribner, C. E.	Telephones, systems	May 3, 1892
473,975	Steez, F. W.	Annunciators	May 3, 1892
474,001	Dean, J. H.	Indicators	May 3, 1892
474,003	Dills, E.	Lights, incandescent, special features	May 3, 1892
474,008	Gibboney, J. N.	Regulators	May 3, 1892
474,031	Short, S. H.	Electric locomotives	May 3, 1892
474,037	Anderson, J. M.	Lighting, systems	May 3, 1892
474,049	Shobe, A. A. and Embley, W.	Railways, conductor supports and insulators	May 3, 1892
474,050	Wood, J. J.	Cut-outs, mechanical, oscillating snap	May 3, 1892
474,067	Scribner, C. E.	Lighting, systems	May 3, 1892
474,073	Wirshing, A.	Rheostats	May 3, 1892
474,091	Luce, W. B.	Lights, arc, gravity feed, clutch	May 3, 1892
474,109	Vogel, C.	Fire arms, targets	May 3, 1892
474,139	Morse, A. B.	Dampers, automatic	May 3, 1892
474,140	Morse, A. B.	Telegraphy, circuit-closers, thermal	May 3, 1892
474,149	Rowand, L. G.	do	May 3, 1892

No.	NAME.	CLASS.	DATE.
474,165	Elkins, W. H.	Regulators	May 3, 1892
474,166	Elkins, W. H.	do	May 3, 1892
474,169	Hellinger, A.	Steam engines, speed governors, marine	May 3, 1892
474,214	Collier, A. T.	Telephones, magnetic	May 3, 1892
474,218	Cosgrove, J. J., jr.	Railways, systems, conduit	May 3, 1892
474,230	Edison, T. A.	Telephones, electric	May 3, 1892
474,231	Edison, T. A.	do	May 3, 1892
474,232	Edison, T. A.	do	May 3, 1892
474,266	Shepard, A. L.	Lights, arc, positive feed, gear-clutch	May 3, 1892
474,271	Timby, T. R.	Turrets, ship's	May 3, 1892
474,319	Goodrich, C. F.	Railways, conductor supports and insulators	May 3, 1892
474,323	Hayes, H. V.	Telephones, systems	May 3, 1892
474,328	Mower, S. E.	Electric locomotives	May 3, 1892
474,331	Boynton, E. M.	do	May 3, 1892
474,335	Baker, C. H.	Railways, systems, conduit	May 10, 1892
474,375	Evans, O. F.	Railways, conductor supports and insulators	May 10, 1892
474,388	Jenney, C. D.	Magneto-electric	May 10, 1892
474,398	Mitchell, W.	Heaters	May 10, 1892
474,403	Pfingst, L.	Railway cars, trucks	May 10, 1892
474,447	Gibboney, J. W.	Regulators	May 10, 1892
474,454	Lutcke, C.	Batteries, galvanic	May 10, 1892
474,468	Bruner, A.	Conductors, underground	May 10, 1892
474,469	Dickerson, M.	Telegraphy, lightning arresters	May 10, 1892
474,472	Hunter, R. M.	Railways, systems, conduit	May 10, 1892
474,473	Hutchins, G. K.	Cut-outs, mechanical	May 10, 1892
474,523	Gibboney, J. W.	Indicators	May 10, 1892
474,528	Patenall, T. H.	Railway signals	May 10, 1892
474,541	Willing, C. A. P. and Violet, R. J. G.	Lights, sockets and keys	May 10, 1892
474,542	Brintnell, A. H.	Telegraphy, circuit closers, thermal	May 10, 1892
474,552	Friel, C. E.	Railways, systems, overhead, trolleys	May 10, 1892
474,569	Anderson, A.	Insulators	May 10, 1892
474,554	Tobey, C. W.	Connectors	May 10, 1892
474,592	Edison, T. A.	Conveyors, endless belt	May 10, 1892
474,600	Hirsh, R. and Meininger, H.	Magneto-electric	May 10, 1892
474,623	Andrews, W. S.	Motors	May 10, 1892
474,624	Andrews, J. D. F.	Magneto-electric	May 10, 1892
474,632	Fehr, L. A.	Lighting, systems	May 10, 1892
474,667	Kurz, W. D. and Anderson, H.	do	May 10, 1892
474,670	Martin, M.	Telegraphy, fire, alarms and extinguishers	May 10, 1892
474,673	Meyer, J.	Telegraphy, circuit closers, thermal	May 10, 1892
474,706	Watkins, R.	Telegraphy, relays and sounders	May 10, 1892
474,735	Haight, H. J.	Weather vanes	May 10, 1892
474,771	Dibble, F. J.	Telethermometers	May 10, 1892
474,787	Wagner, H. A. and Schwedtmann, F.	Motors, alternating	May 10, 1892
474,797	Mitchell, W.	Heaters	May 10, 1892
474,826	Gutman, H. J.	Lights, sockets and keys	May 17, 1892
474,827	Hale, F. W.	Music, electric actions	May 17, 1892
474,828	Hathaway, P.	Inductoriums, induction coils	May 17, 1892
474,834	Johns, H. W.	Boiler coverings	May 17, 1892
474,835	Jones, J. and Jones, J., jr.	Annunciators, time	May 17, 1892
474,847	Morgan, E. C.	Railways, conductor supports and insulators	May 17, 1892
474,848	Morgan, E. C.	Magneto-electric	May 17, 1892
474,852	Noyes, B. J.	Telegraphy, fire	May 17, 1892
474,853	Noyes, B. J.	do	May 17, 1892
474,854	O'Connell, J. J.	Telephones, systems	May 17, 1892
474,857	Phillips, E. B.	Electric locomotives	May 17, 1892
474,907	Greene, G. P.	Annunciators, drop systems	May 17, 1892
474,912	Heating, A. S.	Batteries, galvanic	May 17, 1892
474,913	Lockwood, G. F.	Gearing	May 17, 1892
474,921	Pfannkuche, G.	Cut-outs, mechanical	May 17, 1892
474,945	Chase, H. A.	Telegraphy, fire, variable signal, dial	May 17, 1892
474,953	Ellis, A. L.	Regulators	May 17, 1892
474,957	Herrick, A. B.	Rheostats	May 17, 1892
474,960	Hutchinson, J. and Herrick, A. B.	Lighting, systems, hand regulation	May 17, 1892
474,964	Mitchell, W.	Heaters	May 17, 1892
474,977	Thomas, F.	Medical and surgical, electrodes	May 17, 1892
474,980	Vassar, R. G.	Alarms, burglar	May 17, 1892
474,984	Brown, C. and Melms, G. J.	Electric locomotives	May 17, 1892
475,066	Ricketson, J. C.	Indicators	May 17, 1892
475,107	Grantland, J. W.	Railways, systems, conduit	May 17, 1892
475,137	Morgenthau, F.	Electric locks	May 17, 1892
475,159	Short, S. H.	Magneto-electric	May 17, 1892
475,160	Short, S. H.	Electric locomotives	May 17, 1892
475,169	Watson, A. H. and Antoni, F. E.	Heaters	May 17, 1892
475,178	Burton, G. D.	Metal working, heating	May 17, 1892
475,179	Burton, G. D.	Heaters	May 17, 1892
475,180	Burton, G. D.	Connectors	May 17, 1892



NO.	NAME.	CLASS.	DATE.
475,181	Burton, G. D	Metal working, heating	May 17, 1892
475,182	Burton, G. D	do	May 17, 1892
475,183	Burton, G. D	do	May 17, 1892
475,184	Burton, G. D	do	May 17, 1892
475,185	Burton, G. D. and Angell, E. E	do	May 17, 1892
475,186	Burton, G. D. and Angell, E. E	do	May 17, 1892
475,187	Burton, G. D. and Angell, E. E	Heaters	May 17, 1892
475,188	Burton, G. D. and Angell, E. E	Metal working, heating	May 17, 1892
475,189	Burton, G. D. and Angell, E. E	Heaters	May 17, 1892
475,190	Burton, G. D. and Angell, E. E	do	May 17, 1892
475,191	Burton, G. D. and Angell, E. E	Metal working, heating	May 17, 1892
475,192	Burton, G. D. and Angell, E. E	do	May 17, 1892
475,193	Burton, G. D. and Angell, E. E	do	May 17, 1892
475,194	Burton, G. D. and Angell, E. E	do	May 17, 1892
475,195	Burton, G. D. and Angell, E. E	do	May 17, 1892
475,196	Burton, G. D. and Angell, E. E	do	May 17, 1892
475,232	Burton, G. D. and Angell, E. E	do	May 17, 1892
475,255	Sterling, W. A	Rheostats	May 17, 1892
475,261	Winton, H. D	Wire working, bending	May 17, 1892
475,264	Burton, G. D	Metal working, heating	May 17, 1892
475,286	Moore, J. B	Lights, incandescent, special features	May 17, 1892
475,289	Brianne, L	Lights, arc, gravity feed, gear-clutch	May 24, 1892
475,300	Cook, V. A	Telephones, details	May 24, 1892
475,334	Moore, W. C	Telephones, calls, step-by-step	May 24, 1892
475,335	McLaughlin, J. F	Batteries, secondary	May 24, 1892
475,340	Palmer, F. S. and Desile, L. H	Telegraphy, circuit closers, thermal	May 24, 1892
475,345	Rockwood, F. C	Lights, sockets and keys	May 24, 1892
475,378	Ayres, R. B	Station indicators	May 24, 1892
475,394	Green, H	Lights, incandescent	May 24, 1892
475,399	Hoet, C. F	Registers	May 24, 1892
475,402	Lange, T	Electrolysis, aqueous bath, zinc	May 24, 1892
475,410	McKay, H. S	Motors, reciprocating	May 24, 1892
475,411	McKenna, A. S	Meters	May 24, 1892
475,441	Cuttriss, C	Telegraphy, relays and sounders	May 24, 1892
475,442	Cuttriss, C	Heaters	May 24, 1892
475,467	Newhouse, J. W	Railways, systems, overhead, trolleys	May 24, 1892
475,468	Non, F. E	Telegraphy, circuits and systems	May 24, 1892
475,482	Browne, J. E. and Tidman, F. H	Telegraphy, lightning arresters	May 24, 1892
475,491	Edison, T. A	Electric locomotives	May 24, 1892
475,492	Edison, T. A	do	May 24, 1892
475,493	Edison, T. A	do	May 24, 1892
475,494	Edison, T. A	Railways, systems	May 24, 1892
475,504	Hoyt, A. O. and Lefler, P. W	Railways, systems, overhead	May 24, 1892
475,514	McElroy, J. F	Lighting, systems, car	May 24, 1892
475,527	Wickham, H	Induction coils	May 24, 1892
475,528	Willms, C	Rheostats	May 24, 1892
475,529	Willms, C	do	May 24, 1892
475,538	Cowgill, M. J	Lighting, systems	May 24, 1892
475,544	Dobbie, R. S	Lights, arc and incandescent	May 24, 1892
475,555	Halvorson, C. A. B	Lights, sockets and keys	May 24, 1892
475,566	Jardine, C. K	Time checks	May 24, 1892
475,645	Waterhouse, A. G	Lighting, systems	May 24, 1892
475,667	Coffin, C. L	Metal working, heating	May 24, 1892
475,668	Coffin, C. L	Magneto-electric	May 24, 1892
475,698	Meech, H. B	Globes	May 24, 1892
475,702	Patton, W. H	Electric locomotives	May 24, 1892
475,703	Pease, L. E	Heaters	May 24, 1892
475,727	Gaston, J. E	Lights, arc, gravity feed, gear-clutch	May 24, 1892
475,759	Ericsson, O	Meters	May 31, 1892
475,781	Lloyd, E. L	Insulators	May 31, 1892
475,783	Manger, F. W. and Huebel, O. H	Bells	May 31, 1892
475,797	Reckenzaun, A	Batteries, galvanic	May 31, 1892
475,809	Schmidt, F. M	Clocks, electric	May 31, 1892
475,879	Martin, J. C	Store service, propulsion	May 31, 1892
475,898	Schneider, F. W. A	Rheostats	May 31, 1892
475,920	Bassett, C. W	Conductors	May 31, 1892
475,925	Burgher, C	Telegraphy, automatic	May 31, 1892
475,938	Gathorpe, T	Telegraphy, circuits and systems	May 31, 1892
475,955	Watson, W. S	Railway signals, block system	May 31, 1892
475,970	Shawhan, J. F	Electric locomotives	May 31, 1892
475,998	Burnett, H. D. and Doane, S. E	Lights, incandescent	May 31, 1892
476,007	Finch, H	Telephones, electric	May 31, 1892
476,021	Miner, H. A	Shade supports	May 31, 1892
476,026	Sherman, S. F	Telephones, electric	May 31, 1892
476,028	Yeokley, M. A	Railways, systems, overhead, trolleys	May 31, 1892
476,054	Magenis, J. P	Telephones, electric	May 31, 1892
476,080	Sauche, H	Connectors	May 31, 1892



No.	NAME.	CLASS.	DATE.
476,128	Carr, W. F. and Ferrin, C. F	Railways, systems, conduit	May 31, 1892
476,151	Kaedding, W	Magneto-electric	May 31, 1892
476,156	Manwaren, A. H	Lighting, systems, test	May 31, 1892
476,183	Ball, J	Lights, incandescent	May 31, 1892
476,192	Elliott, C. B	Railways, conductor supports and insulators	May 31, 1892
476,193	Elliott, C. B	do	May 31, 1892
476,200	Harrison, E. W	Telephones, electric	May 31, 1892
476,207	Locke, F. M	Insulators	May 31, 1892
476,225	Carpenter, W. P	Motors, reciprocating	May 31, 1892
476,236	Avres, A. D.	Electro-magnets	June 7, 1892
476,240	Benjamin, F. P	Railway signals, block systems	June 7, 1892
476,292	Moses, P	Lights, filaments and carbons	June 7, 1892
476,296	Osgood, R. P	Batteries, galvanic	June 7, 1892
476,311	Replayle, M. A	Regulators	June 7, 1892
476,317	Rudd, C. H	Lighting, systems, test	June 7, 1892
476,330	Thomson, E	Cut-outs, thermal	June 7, 1892
476,331	Thomson, E	Magneto-electric	June 7, 1892
476,334	Ulman, M	Annunciators, step-by-step	June 7, 1892
476,346	Wightman, M. J	Motors, alternating	June 7, 1892
476,347	Wilson, D. H	do	June 7, 1892
476,367	Crane, S. C	Railways, systems, overhead, trolleys	June 7, 1892
476,368	Daggett, F. B	Magneto-electric	June 7, 1892
476,376	Fleming, W. B	Valve controllers	June 7, 1892
476,388	Judson, C. N	Elevators, hatchways	June 7, 1892
476,422	Sechrist, A	Lighting, systems	June 7, 1892
476,425	Smith, E. F	Lights, arc, gravity feed, gear-clutch	June 7, 1892
476,426	Sperry, E. A	Regulators	June 7, 1892
476,437	Adams, T. E	Electric locomotives	June 7, 1892
476,463	Hunter, J. H	Bells	June 7, 1892
476,464	Jackson, C. E	Conductors	June 7, 1892
476,473	Mears, R. S	Medical and surgical, body-wear	June 7, 1892
476,483	Paramore, E. C	Batteries, secondary	June 7, 1892
476,484	Patterson, W. R	Conductors, lead-covered	June 7, 1892
476,490	Rudd, C. H	Lighting, systems, test	June 7, 1892
476,492	Scribner, C. E	Telephones, systems	June 7, 1892
476,493	Scribner, C. E	Lights, arc, gravity feed, clutch	June 7, 1892
476,494	Seely, J. A	Telephones, systems, details	June 7, 1892
476,501	Weaver, E. E. and Manypenny, G. B	Lights, incandescent	June 7, 1892
476,509	Bell, O. A	Telephones, systems, multiple switch board, test	June 7, 1892
476,527	Edison, T. A	Lighting, systems	June 7, 1892
476,528	Edison, T. A	Lights, incandescent	June 7, 1892
476,529	Edison, T. A	Lighting, arresters	June 7, 1892
476,530	Edison, T. A	Cut-outs, thermal	June 7, 1892
476,531	Edison, T. A	Lighting, systems	June 7, 1892
476,544	Leonard, H. W	do	June 7, 1892
476,570	Sperry, E. A	Cut-outs, thermal	June 7, 1892
476,573	Stout, J. V	Valve controllers	June 7, 1892
476,582	Vogt, C	Telephones, electric	June 7, 1892
476,583	Vogt, C	Telephones, magnetic	June 7, 1892
476,603	Bradley, W	Railways, systems, conduit	June 7, 1892
476,604	Brady, T. H	Insulators	June 7, 1892
476,607	Caldwell, J. H	Street-light hangers	June 7, 1892
476,613	Davis, C. E	Cut-outs, mechanical	June 7, 1892
476,613	Dunbar, F. W	Telegraphy, circuits and systems	June 7, 1892
476,700	Thurston, R. H	Lights, arc, special features	June 7, 1892
476,730	Carr, C. B	Telegraphy, relays and sounders	June 7, 1892
476,733	Clark, M. M	Batteries, galvanic	June 7, 1892
476,739	Cromer, H. I	Registers	June 7, 1892
11,244	Woolf, A. E	(Reis.) Electrolysis, bleaching	June 7, 1892
476,776	Barkley, R. W	Railways, systems, conduit	June 14, 1892
476,781	Broadnax, F	Cut-outs, mechanical	June 14, 1892
476,792	Goodridge, W. M	do	June 14, 1892
476,793	Goodridge, W. M	Telephones, systems	June 14, 1892
476,813	Pass, J. and Seymour, A. P	Insulators	June 14, 1892
476,816	Pfannekuiche, G. and A	Induction coils	June 14, 1892
476,818	Pike, L. S. M. and Harris, E. S	Magneto-electric	June 14, 1892
476,819	Pike, L. S. M. and Harris, E. S	do	June 14, 1892
476,826	Seely, J. A	Telephones, systems	June 14, 1892
476,827	Seymour, A. P	Insulators	June 14, 1892
476,828	Seymour, A. P	do	June 14, 1892
476,829	Seymour, A. P	Cut-outs, mechanical	June 14, 1892
476,830	Shallenberger, O. B	Regulators	June 14, 1892
476,843	Tyler, H. L	Systems of distribution	June 14, 1892
476,845	Varley, R., Jr	Bells	June 14, 1892
476,855	Wurts, A	Telegraphy, lightning arresters	June 14, 1892
476,873	Cregier, N. B	Telegraphy, railway car	June 14, 1892

NO.	NAME.	CLASS.	DATE.
476,887	Marinowitch, B. and Szawady, G	Coin-controlled apparatus, telephoned	June 14, 1892
476,889	Meyer, J. and Binder, C	Towers, telegraph poles	June 14, 1892
476,914	Bernard, M. and E	Electrolysis, fused bath	June 14, 1892
476,933	Spencer, W. M	Globes	June 14, 1892
476,935	Tatro, C. P	Railways, systems, closed conduit	June 14, 1892
476,964	Seymour, A. P	Insulators	June 14, 1892
476,970	Arnold, C. R	Cut-outs, thermal	June 14, 1892
476,983	Edison, T. A	Pyro-magneto electric devices	June 14, 1892
476,985	Edison, T. A	Railways, systems, overhead, trolleys	June 14, 1892
476,986	Edison, T. A	Gearing, belts	June 14, 1892
476,987	Edison, T. A	Electric locomotives	June 14, 1892
476,988	Edison, T. A	Telegraphy, lightning arresters	June 14, 1892
476,989	Edison, T. A	Railways, systems, conduit	June 14, 1892
476,990	Edison, T. A	Meters	June 14, 1892
476,991	Edison, T. A	Electric purifiers	June 14, 1892
476,992	Edison, T. A	Lights, incandescent	June 14, 1892
476,993	Edison, T. A	Light, arc, positive feed, gear-clutch	June 14, 1892
477,049	Rowand, L. S	Telegraphy, fire, automatic	June 14, 1892
477,068	Rowand, L. S	do	June 14, 1892
477,069	Rowand, L. S	do	June 14, 1892
477,070	Rowand, L. S	do	June 14, 1892
477,071	Rowand, L. S	Annunciators, drop	June 14, 1892
477,081	Thomas, T. C. J	Gas burners, regenerative	June 14, 1892
477,100	Clark, J. H	Elevators	June 14, 1892
477,101	Coffin, C. L	Metal working, heating	June 14, 1892
477,146	Painter, G. E	Lights, sockets and keys	June 14, 1892
477,175	Gaylord, C. H	Magneto-electric	June 14, 1892
477,182	Lloyd, H. H	Batteries, secondary	June 14, 1892
477,206	Franklin, B	Time alarms	June 21, 1892
477,214	Knowles, S., jr	Telegraphy, fire, alarms and extinguishers	June 21, 1892
477,218	McLeod, J. D	Conductors, underground	June 21, 1892
477,219	McNellis, C	Lights, arc, special features	June 21, 1892
477,220	Naef, J. J	Electrolysis, aqueous bath, tin	June 21, 1892
477,221	Parker, L	Lights, arc, gravity feed, clutch	June 21, 1892
477,223	Pilkington, H. M. and White, R. S	Galvanometers	June 21, 1892
477,247	Cummings, S. K	Rheostats	June 21, 1892
477,250	Du Bois-Reymond, A. E	Transmission of power	June 21, 1892
477,273	Rutherford, N. F	Lights, arc, positive feed	June 21, 1892
477,301	Hale, P. and Sparks, C. H	Alarms, burglar	June 21, 1892
477,315	Tapley, W. H	Telegraphy, circuit closers, thermal	June 21, 1892
477,350	Burrowes, E. T	Electrolysis, alloys	June 21, 1892
477,352	Cottrell, E. H	Paper manufacture, feeding	June 21, 1892
477,374	Klein, C. J	Cut-outs, mechanical, oscillating snap	June 21, 1892
477,383	Reed, C. J	Telegraphy, printing	June 21, 1892
477,384	Reed, C. J	do	June 21, 1892
477,407	Gibbs, J. S	Lights, sockets and keys	June 21, 1892
477,409	Greenfield, E. T	Cut-outs, mechanical, oscillating snap	June 21, 1892
477,427	Maguire, F. V	Lights, arc, positive feed, gear-clutch	June 21, 1892
477,483	Yeiser, F	Motors	June 21, 1892
477,579	Scribner, C. E	Telephones, systems, multiple switch board, test	June 21, 1892
477,595	Linds, J. L	Cut-outs, mechanical, oscillating snap	June 21, 1892
477,612	Snow, E. A	do	June 21, 1892
477,613	Sundh, A	Coin-controlled apparatus, weighing	June 21, 1892
477,616	Warner, J. C	Annunciators, drop	June 21, 1892
477,627	Carpenter, C. E	Printing, hand stamp	June 21, 1892
477,628	Carpenter, C. E	Heaters	June 21, 1892
477,635	Blodgett, W. E	Telegraphy, printing	June 28, 1892
477,637	Bradford, J. M	Regulators	June 28, 1892
477,645	Childs, W. A	Batteries, galvanic	June 28, 1892
477,647	Christy, B. J	Boiler coverings	June 28, 1892
477,652	Etheridge, H	Telegraphy, printing	June 28, 1892
477,656	Haselwander, F	Telegraphy, lightning arresters	June 28, 1892
477,665	Linville, S. R	Telegraphy, printing	June 28, 1892
477,708	Sigsbee, C. D., Hayward, T. S. and Anderson, F. S	Rheostats	June 28, 1892
477,712	Stromberg, A	Alarms, burglar	June 28, 1892
477,729	Wood, J. J	Magneto-electric	June 28, 1892
477,730	Wright, B	Elevators, safety devices	June 28, 1892
477,732	Abbott, A. V	Insulators	June 28, 1892
477,734	Bates, J. W	Railways, systems, closed conduit	June 28, 1892
477,735	Blair, J	Painting, white lead	June 28, 1892
477,753	Goold, F. D'A	Insulators	June 28, 1892
477,781	Sachs, J	do	June 28, 1892
477,786	Smith, E. L. and Foster, G. C. H	Lights, sockets, and keys	June 28, 1892
477,787	Snedeker, C. T	Conductors	June 28, 1892
477,810	Molendo, H	Cut-outs, thermal	June 28, 1892
477,835	Davies, C. L	Telegraphy, circuits and systems	June 28, 1892

No.	NAME.	CLASS.	DATE.
477,853	Barrett, C. T.	Pressure gages	June 28, 1892
477,866	Jones, R. H.	Telephones, magnetic	June 28, 1892
477,869	Pilkington, H. M. and White, R. S.	Cut-outs, mechanical	June 28, 1892
477,870	Pollack, S.	Anti-induction devices	June 28, 1892
477,879	Wilcox, N. T.	Inductoriums, transformers, rotary	June 28, 1892
477,890	Dillon, T.	Lights, arc, special features	June 28, 1892
477,897	Hollar, W. H. and Holmes, F. S.	Electric locks	June 28, 1892
477,898	Hollar, W. H. and Holmes, F. S.	do	June 28, 1892
477,913	Potter, W. F.	Medical and surgical, body-wear	June 28, 1892
477,914	Silvey, W. L.	Batteries, secondary	June 28, 1892
477,931	Gold, J. S.	Telephones, details	June 28, 1892
477,932	Gold, J. S. and McAlpine, A. H.	Paper clips	June 28, 1892
477,940	Hurd, J. F.	Alarms, burglar	June 28, 1892
477,950	Mathews, S. M.	Alarms	June 28, 1892
477,951	Metzer, C. A.	Railways, conductor supports and insulators	June 28, 1892
477,965	Sunis, C.	Hats, brushing and finishing	June 28, 1892
477,975	Waite, H. E.	Medical and surgical, baths	June 28, 1892
477,980	Wirt, H. E.	Insulators	June 28, 1892
477,984	Bell, C.	Lights, arc, special features	June 28, 1892
477,986	Beyer, A.	Knitting and netting, stopping	June 28, 1892
478,011	Mangan, T.	Coin counters	June 28, 1892
478,018	Osburn, H. G.	Batteries, secondary	June 28, 1892
478,026	Schweiger, C. T. H.	Railways, systems, conduit	June 28, 1892
478,032	Strand, R. P.	Music, electrical actions	June 28, 1892
11,250	Weston, E. (Reis.)	Galvanometers	June 28, 1892





---

# APPENDIX No. XI.

---

## PART III.

---

CONSISTING OF A

ALPHABETICAL INDEX OF ALL PATENTS

RELATING TO

**ELECTRICITY**

Issued from July 1, 1891, to June 30, 1892, inclusive, giving names of Inventors,  
numbers and dates of Patents, and the sub-class to which each belongs.

---





# ALPHABETICAL INDEX

OF

## PATENTS RELATING TO ELECTRICITY

FROM JULY 1, 1891, TO JUNE 30, 1892.

No.	NAME.	CLASS.	DATE.
477,732	Abbott, A. V.	Insulators	June 28, 1892
472,243	Acheson, E. G.	Telephones, electric	Apr. 5, 1892
456,667	Adams, W. G.	Alarms	July 28, 1891
457,330	Adams, T. E.	Regulators	Aug. 4, 1891
457,334	Adams, T. E.	Railways, systems, overhead, trolleys	Aug. 11, 1891
463,359	Adams, T. E.	do	Nov. 17, 1891
464,411	Adams, T. E.	Railways, conductor supports and insulators	Dec. 1, 1891
473,283	Adams, T. E.	Lights, arc, gravity feed, clutch	Apr. 19, 1892
476,437	Adams, T. E.	Electric locomotives	June 7, 1892
465,961	Albanese, G. S.	Insulators	Dec. 29, 1891
458,769	Aldrich, F. H.	Harps and hangers	Sept. 1, 1891
469,670	Aldrich, T. H.	Blow pipes	Mar. 1, 1891
459,465	Allen, B. W.	Cut-outs, mechanical	Sept. 15, 1891
463,765	Alton, G. H.	Railways, systems, overhead, trolleys	Nov. 24, 1891
461,770	Ambler, A. J.	Car brakes	Oct. 20, 1891
470,231	Amet, E. H.	Telegraphy, fire, alarms and extinguishers	Mar. 8, 1892
474,569	Anderson, A.	Insulators	May 10, 1892
474,037	Anderson, J. M.	Lighting, systems	May 3, 1892
464,691	Anderson, L.	Medical and surgical, body-wear	Dec. 8, 1891
472,326	Anderson, F. A., L. G. H. and H.	Paper manufactures	Apr. 5, 1892
474,624	Andrews, J. D. F.	Magneto-electric	May 10, 1892
465,511	Andrews, W. C.	Cut-outs, mechanical, oscillating snap	Dec. 22, 1891
466,391	Andrews, W. S.	Railways, conductor supports and insulators	Jan. 5, 1892
474,623	Andrews, W. S.	Motors	May 10, 1892
470,417	Andrews, W. S. and Ball, H. P.	Railways, conductor supports and insulators	Mar. 8, 1892
465,512	Andrews, W. S. and Warren, A. K.	Rheostats	Dec. 22, 1891
466,131	Angell, E. E.	Metal working, heating	Dec. 29, 1891
466,132	Angell, E. E.	Heaters	Dec. 29, 1891
466,133	Angell, E. E.	do	Dec. 29, 1891
465,613	Applegate, W. H.	Railways, systems, closed conduit	Dec. 22, 1891
467,075	Appleyard, A. E.	Heaters	Jan. 12, 1892
457,694	Armstrong, A. W.	Magic lanterns	Aug. 11, 1891
462,834	Armstrong, C. G.	Annunciators	Nov. 10, 1891
462,835	Armstrong, C. G.	Indicators	Nov. 10, 1891
465,404	Armstrong, C. G.	Motors	Dec. 15, 1891
457,067	Arnold, C. R.	Car brakes	Aug. 4, 1891
460,245	Arnold, C. R.	Magneto-electric, couplings	Sept. 29, 1891
464,547	Arnold, C. R.	Magneto-electric	Dec. 8, 1891
464,548	Arnold, C. R.	Cut-outs, thermal	Dec. 8, 1891
473,373	Arnold, C. R.	Lights, sockets and keys	Apr. 19, 1891
476,970	Arnold, C. R.	Cut-outs, thermal	June 14, 1892
471,371	Arthur, J.	Theater appliances	Mar. 22, 1892
473,105	Atkins, G. J.	Amalgamators, mercury	Apr. 19, 1892
471,691	Atkinson, C. W. and L. B.	Magneto-electric	Mar. 29, 1892
464,001	Atkinson, R. L.	Telegraphy, repeaters	Dec. 1, 1891
461,803	Atwood, L. M. C.	Car brakes	Oct. 27, 1891
464,002	Atwood, L. M. C.	do	Dec. 1, 1891
466,212	Atwood, L. M. C.	do	Dec. 29, 1891
470,095	Atwood, L. M. C.	Motors, rotary	Mar. 1, 1892
469,460	Austin, N. E.	Elevated carriers	Feb. 23, 1892
469,672	Ayres, A. D.	Electro-magnetic	Mar. 1, 1892
476,236	Ayres, A. D.	Electro-magnets	June 7, 1892
467,678	Ayres, R. B.	Station indicators	Jan. 26, 1892
467,884	Ayres, R. B.	do	Jan. 26, 1892
475,378	Ayres, R. B.	do	May 24, 1892
459,863	Ayton, C. W.	Recorders, pressure	Sept. 22, 1891
470,736	Bacon, G. M.	Lightning arresters	Mar. 15, 1892
467,985	Bacorn, F. W.	Annunciators	Feb. 2, 1892
458,800	Badger, W. E.	Gearing	Sept. 1, 1891
463,311	Bagnall, E. J.	Cut-outs, mechanical	Nov. 17, 1891
472,801	Baillard, G. C.	Lights, sockets and keys	Apr. 12, 1892
474,800	Baillard, G. C.	do	Apr. 12, 1892
474,355	Baker, C. H.	Railways, systems, conduit	May 10, 1892

No.	NAME.	CLASS.	DATE.
465,039	Baker, J. and Graham, H. S.	Lights, incandescent, special features	Dec. 15, 1891
465,349	Ball, C. M.	Separators	Dec. 15, 1891
455,559	Ball, H. P.	Lights, sockets and keys	July 7, 1891
458,964	Ball, H. P.	Insulators	Sept. 1, 1891
460,548	Ball, H. P.	Cut-outs, thermal	Oct. 6, 1891
461,109	Ball, H. P.	Wire stretchers, removable	Oct. 13, 1891
461,560	Ball, H. P.	Cut-outs, mechanical	Oct. 20, 1891
461,561	Ball, H. P.	do	Oct. 20, 1891
461,562	Ball, H. P.	Cut-outs, mechanical, oscillating snap	Oct. 20, 1891
461,563	Ball, H. P.	Connectors	Oct. 20, 1891
462,463	Ball, H. P.	Cut-outs, thermal	Nov. 3, 1891
465,514	Ball, H. P.	Lights, arc, gravity feed, clutch	Dec. 22, 1891
476,183	Ball, J.	Lights, incandescent	May 31, 1892
472,747	Ball, R. E.	Lights, arc, gravity feed, clutch	Apr. 12, 1892
461,229	Baldwin, G. R.	Meters	Oct. 13, 1891
456,611	Balsley, W. H.	Conductors	July 28, 1891
476,776	Barkley, R. W.	Railways, systems, conduit	June 14, 1892
466,972	Bartholomew, J. W.	Magneto-electric	Jan. 12, 1892
465,444	Barton, H.	Cut-outs, mechanical	Dec. 22, 1891
461,518	Barrett, C. T.	Railway signals, cab	Oct. 20, 1891
477,853	Barrett, C. T.	Pressure gages	June 28, 1892
462,681	Barrett, J. A.	Conductors	Nov. 10, 1891
475,920	Bassett, C. W.	do	May 31, 1892
455,298	Bassett, N. C.	Electric locomotives	July 7, 1891
456,925	Bassett, N. C.	Magneto-electric	July 28, 1891
457,102	Bassett, N. C.	Electric locomotives	Aug. 4, 1891
458,555	Bassett, N. C.	Controllers	Sept. 1, 1891
458,556	Bassett, N. C.	do	Sept. 1, 1891
456,540	Bassler, J. H.	Heaters	July 21, 1891
468,314	Bates, C. H.	Railways, systems, closed conduit	Feb. 2, 1892
477,734	Bates, J. W.	do	June 28, 1892
463,024	Bates, J. W. and Blake, C. E.	Railways, systems, overhead, trolleys	Nov. 10, 1891
463,615	Baxter, W., jr.	Elevators	Nov. 24, 1891
484,470	Baxter, W., jr.	do	Dec. 1, 1891
466,028	Baxter, W., jr.	Regulators	Dec. 29, 1891
466,973	Baxter, W., jr.	Elevators	Jan. 12, 1892
468,186	Beard-ley, C. A.	Towers, skeleton	Feb. 2, 1892
459,923	Beattie, J., jr.	Magneto-electric	Sept. 22, 1891
466,820	Beattie, J., jr.	Batteries, galvanic	Jan. 12, 1892
461,178	Beckers, M.	Alarms	Oct. 13, 1891
468,779	Beebe, J. W.	Railways, systems, overhead, trolleys	Feb. 16, 1892
469,462	Beers, I. F. and F. C.	Valve-controllers	Feb. 26, 1892
477,984	Bell, C.	Lights, arc, special features	June 28, 1892
476,509	Bell, O. A.	Multiple switch-board, test	June 7, 1892
461,809	Benjamin, F. P.	Railway signals, cab	Oct. 27, 1891
461,810	Benjamin, F. P.	do	Oct. 27, 1891
476,240	Benjamin, F. P.	Railway signals, block	June 7, 1892
472,691	Benjamin, G. H.	Coating with metal	Apr. 12, 1892
456,612	Bentley, E. M.	Regulators	July 28, 1891
459,737	Bentley, E. M.	Railways, systems, overhead	Sept. 22, 1891
462,548	Bentley, E. M.	Railways, systems, conduit	Oct. 20, 1891
462,331	Bentley, E. M.	do	Nov. 3, 1891
469,353	Bentley, E. M.	Railways, systems, overhead	Feb. 23, 1892
470,654	Bentley, E. M.	Railways, systems, conduit	Mar. 15, 1892
472,026	Bergmann, S. and Scott, G. A.	Galvanometers	Apr. 5, 1892
472,027	Bergmann, S. and Scott, G. A.	Cut-outs, mechanical, rotary	Apr. 5, 1892
467,551	Bergmann, A. (dec'd)	Valve controllers	Jan. 26, 1892
457,572	Bergmann, S.	Cut-outs, electro-magnetic	Aug. 11, 1891
457,573	Bergmann, S.	Lights, incandescent, special features	Aug. 11, 1891
461,791	Bergmann, S.	Lighting, systems	Oct. 20, 1891
465,516	Berger, O. and Eldridge, H.	Advertising, signs	Dec. 22, 1891
463,569	Berliner, E.	Telephones, electric	Nov. 17, 1891
476,914	Bernard, M. and E.	Electrolysis, fused bath	June 14, 1892
458,258	Berthon, L. A.	Telephones, systems, details	Aug. 25, 1891
455,981	Bethel, G. H.	Medical and surgical, baths	July 14, 1891
477,986	Beyer, A.	Knitting and netting, stopping	June 28, 1892
463,570	Bichet, A. and Whitney, R. W.	Telegraphy, fire	Nov. 17, 1891
465,233	Billbery, C. O. C.	Magneto-electric	Dec. 15, 1891
465,234	Billbery, C. O. C.	do	Dec. 15, 1891
463,824	Birdsall, E. T. and Serrell, L. W.	Railways, conductor supports and insulators	Nov. 24, 1891
462,369	Blackwell, F. O.	Motors	Nov. 3, 1891
462,466	Blackwell, F. O.	Magneto-electric	Nov. 3, 1891
463,766	Blackwell, F. O.	Railways, systems, overhead	Nov. 24, 1891
465,447	Blackwell, F. O.	Railways, conductor supports and insulators	Dec. 22, 1891
467,078	Blackwell, F. O.	Rheostats	Jan. 12, 1892
468,128	Blackwell, F. O.	Electric locomotives	Feb. 2, 1892
468,492	Blackwell, F. O.	do	Feb. 9, 1892



No.	NAME.	CLASS.	DATE.
470,656	Blackwell, F. O	Electric locomotives	Mar. 15, 1892
470,657	Blackwell, F. O	Railways, systems, conduit	Mar. 15, 1892
470,817	Blackwell, F. O	Electric locomotives	Mar. 15, 1892
470,844	Blackwell, F. O	Railways, conductor supports and insulators	Mar. 15, 1892
471,375	Blackwell, F. O	Railways, systems, conduit	Mar. 22, 1892
457,338	Blades, H. H	Motors	Aug. 11, 1891
457,339	Blades, H. H	do	Aug. 11, 1891
459,229	Blades, H. H	Elevators	Sept. 8, 1891
459,739	Blades, H. H	Magneto-electric	Sept. 22, 1891
462,527	Blades, H. H. and McKee, W. J	Elevators	Nov. 3, 1891
477,735	Blair, J	Painting, white lead	June 28, 1892
466,266	Blanchard, G. W	Heaters	Dec. 29, 1891
472,329	Blanchard, G. W	Car brakes	Apr. 5, 1892
464,671	Blathy, O. T	Motors, alternating	Dec. 8, 1891
477,635	Blodgett, W. E	Telegraphy, printing	June 28, 1892
469,362	Boardman, F. R	Lights, arc and incandescent	Feb. 23, 1892
472,688	Bockhaus, E	Telegraphy, circuit closers, thermal	Apr. 12, 1892
458,278	Boening, E	Applications, tools and machines	Aug. 25, 1891
455,680	Bogardus, C. A	Medical and surgical, body-wear	July 7, 1891
464,719	Böhm, L. K	Lights, filaments and carbons	Dec. 8, 1891
465,423	Boles, W. H	Heaters	Dec. 15, 1891
462,648	Bolles, F. G	Conductors, underground	Nov. 3, 1891
471,850	Bonis, H	Medical and surgical, electrodes	Mar. 29, 1892
458,652	Bottomé, T. D	Systems of distribution	Sept. 1, 1891
458,653	Bottomé, T. D	Cut-outs, thermal	Sept. 1, 1891
457,105	Boynton, E. M	Railways, conductor supports and insulators	Aug. 4, 1891
457,106	Boynton, E. M	do	Aug. 4, 1891
467,679	Boynton, E. M	Railways, systems, overhead	Jan. 26, 1892
474,331	Boynton, E. M	Electric locomotives	May 3, 1892
465,801	Bradford, C. M	Fire engines, chemical	Dec. 22, 1891
464,673	Bradford, H. P	Boring and drilling appliances	Dec. 8, 1891
477,637	Bradford, J. M	Regulators	June 28, 1892
460,046	Bradley, C. S	Motors, alternating	Sept. 22, 1891
463,852	Bradley, C. S	Telegraphy, multiplex	Nov. 24, 1891
464,933	Bradley, C. S	Reducing and separating aluminium	Dec. 8, 1891
468,148	Bradley, C. S	Electrolysis, fused bath	Feb. 2, 1892
473,866	Bradley, C. S	do	Apr. 26, 1892
464,005	Bradley, J.	Lights, filaments and carbons	Dec. 1, 1891
472,968	Bradley, S. R	Medical and surgical, electrodes	Apr. 12, 1892
455,447	Bradley, W	Railways, systems, conduit	July 7, 1891
476,603	Bradley, W	do	June 7, 1892
476,604	Brady, T. H	Insulators	June 7, 1892
463,773	Brady, W. R	Street-light hangers	Nov. 24, 1891
475,259	Brianne, L	Lights, arc, gravity feed, gear-clutch	May 24, 1892
468,970	Briggs, F. H	Alarms	Feb. 16, 1892
471,096	Briggs, O. P	Railways, conductor supports and insulators	Mar. 22, 1892
457,599	Brill, G. M	Steam street cars	Aug. 11, 1891
461,662	Brill, G. M	do	Oct. 20, 1891
470,831	Brintnell, A. H	Telegraphy, fire, automatic	Mar. 15, 1892
474,542	Brintnell, A. H	Telegraphy, circuit closers, thermal	May 10, 1892
458,279	Bristol, L	Lights, incandescent, special features	Aug. 25, 1891
456,979	Britt, E	Railways, systems, closed conduit	Aug. 4, 1891
476,781	Broadnax, F	Cut-outs, mechanical	June 14, 1892
459,941	Brooks, D., jr	Conductors	Sept. 22, 1891
473,378	Brooks, J. C	Weaving, stopping, weft stop machine	Apr. 19, 1892
456,718	Brooks, L. L	Coin-controlled apparatus, induction coils	July 28, 1891
473,235	Brosington, J. M	Railway signals, cab	Apr. 19, 1892
463,608	Brown, A. W	Telegraphy, fire, automatic	Nov. 17, 1891
472,784	Brwnn, C. D	Lighting, systems	Apr. 12, 1892
459,942	Brown, F. H	Medical and surgical, body-wear	Sept. 22, 1891
456,110	Brown, J. W	Telegraphy, keys	July 14, 1891
473,820	Brown, L. L	Applications, general	Apr. 26, 1892
455,726	Brown, W. F	Magneto-electric	July 7, 1891
465,829	Browne, H. M	Telegraphy, circuit closers, thermal	Dec. 29, 1891
460,942	Browne, W. L	Railways, systems, overhead, trolleys	Oct. 13, 1891
474,984	Brown, C. and Melms, G. J	Electric locomotives	May 10, 1892
475,482	Browne, J. E. and Tidman, F. H	Telegraphy, lightning arresters	May 24, 1892
474,468	Bruner, A	Conductors, underground	May 10, 1892
461,420	Brush, C. F	Lights, arc, special features	Oct. 20, 1891
466,953	Brush, C. F	Galvanometers	Jan. 12, 1892
459,560	Bryan, F	Cut-outs, electro-magnetic	Sept. 15, 1891
457,072	Bryant, W. C	Lights, sockets and keys	Aug. 4, 1891
457,300	Bryant, W. C	Cut-outs, mechanical, oscillating snap	Aug. 4, 1891
469,533	Buchanan, A. D	Electrolysis, aqueous bath apparatus	Feb. 23, 1892
475,925	Burgher, C	Telegraphy, automatic	May 31, 1892
460,109	Burke, C. G	do	Sept. 29, 1891
462,836	Burnet, H. W	Cut-outs, mechanical	Nov. 10, 1891



No.	NAME.	CLASS.	DATE.
475,998	Burnett, H. D. and Doane, S. E	Lights, incandescent	May 31, 1892
460,110	Burke, C. S	Telegraphy, relays and sounders	Sept. 29, 1891
460,111	Burke, C. S	do	Sept. 29, 1891
471,945	Burnley, W	Batteries, galvanic	Mar. 29, 1892
468,414	Burroughs, W. S	Time alarms	Feb. 9, 1892
477,350	Burrowes, E. T	Electrolysis, alloys	June 21, 1892
463,242	Burt, M. C	Magneto-electric	Nov. 17, 1891
468,938	Burton, G. D	Heaters	Feb. 16, 1892
472,634	Burton, G. D	Metal working, heating	Apr. 12, 1892
475,178	Burton, G. D	do	May 17, 1892
475,179	Burton, G. D	Heaters	May 17, 1892
475,180	Burton, G. D	Connectors	May 17, 1892
475,181	Burton, G. D	Metal working, heating	May 17, 1892
475,182	Burton, G. D	do	May 17, 1892
475,183	Burton, G. D	do	May 17, 1892
475,184	Burton, G. D	do	May 17, 1892
475,264	Burton, G. D	do	May 17, 1892
475,185	Burton, G. D. and Angell, E. E	do	May 17, 1892
475,186	Burton, G. D. and Angell, E. E	do	May 17, 1892
475,187	Burton, G. D. and Angell, E. E	Heaters	May 17, 1892
475,188	Burtou, G. D. and Angell, E. E	Metal working, heating	May 17, 1892
475,189	Burtou, G. D. and Angell, E. E	Heaters	May 17, 1892
475,190	Burton, G. D. and Angell, E. E	do	May 17, 1892
475,191	Burton, G. D. and Angell, E. E	Metal working, heating	May 17, 1892
475,192	Burton, G. D. and Angell, E. E	do	May 17, 1892
475,193	Burton, G. D. and Angell, E. E	do	May 17, 1892
475,194	Burton, G. D. and Angell, E. E	do	May 17, 1892
475,195	Burton, G. D. and Angell, E. E	do	May 17, 1892
475,196	Burton, G. D. and Angell, E. E	do	May 17, 1892
475,232	Burton, G. D. and Angell, E. E	do	May 17, 1892
464,955	Büsser, O	Railways, systems	Dec. 15, 1891
464,490	Buzzell, C. E	Railway signals, block systems	Dec. 8, 1891
467,969	Byllesby, H. M	Electric locomotives	Feb. 2, 1892
469,193	Byllesby, H. M	Magneto-electric	Feb. 16, 1892
468,741	Cabell, S. G	Iron ships	Feb. 9, 1892
476,607	Caldwell, J. H	Street-light hangers	June 7, 1892
470,233	Caldwell, H. A	Cloth cutting machines	Mar. 8, 1892
459,485	Caldwell, R. L	Railways, conductor supports and insulators	Sept. 15, 1891
471,947	Callahan, F. C	Telegraphy, fire, engine-house apparatus	Mar. 29, 1892
467,650	Camp, H. B	Stone and brick setting	Jan. 26, 1892
462,688	Camp, H. C	Railways, systems, conduit	Nov. 10, 1891
468,540	Cane, H	Separators	Feb. 9, 1892
468,281	Cann, E	Telephones, systems	Feb. 2, 1892
461,814	Čápek, J. V	Heaters	Oct. 27, 1891
462,532	Čápek, J. V	do	Nov. 3, 1891
470,418	Čápek, J. V	do	Mar. 8, 1892
470,419	Čápek, J. V	do	Mar. 8, 1892
473,208	Carey, A. C	Lights, incandescent	Apr. 19, 1892
473,209	Carey, A. C	Rheostats	Apr. 19, 1892
470,471	Carey, A. C	Lights, incandescent	Mar. 8, 1892
472,982	Carll, C. W. and Phillips, J. W	Railways, systems, conduit	Apr. 19, 1892
477,627	Carpenter, C. E	Printing, hand stamp	June 21, 1892
477,628	Carpenter, C. E	Heaters	June 21, 1892
462,660	Carpenter, F. H	Lights, arc, special features	Nov. 3, 1891
462,661	Carpenter, F. H	do	Nov. 3, 1891
476,225	Carpenter, W. P	Motors, reciprocating	May 31, 1892
476,730	Carr, C. B	Telegraphy, relays and sounders	June 7, 1892
456,553	Carr, R. S	Measuring instruments, squares	July 28, 1891
11,189	Carr, R. S	do	Sept. 15, 1891
476,128	Carr, W. F. and Ferrin, C. F	Railways, systems, conduit	May 31, 1892
471,525	Carlton, J. J. and Johnston, H. L	Railway signals, block system	Mar. 22, 1892
457,770	Carter, A. G	Tunnels	Aug. 18, 1891
473,911	Carty, J. J	Telephones, systems	May 3, 1892
471,809	Casperson, C. A	Applications, general	Mar. 29, 1892
457,301	Castor, L. D	Cut-outs, mechanical, oscillating snap	Aug. 4, 1891
459,219	Castor, L. D	Cut-outs, mechanical, rotary	Sept. 8, 1891
460,349	Cassagnes, G. A	Telegraphy, printing, multiple wheel	Sept. 29, 1891
465,832	Cassagnes, G. A	Telegraphy, multiplex	Dec. 29, 1891
465,778	Catchell, C. H	Telephones, supports	Dec. 22, 1891
472,494	Caughy, J. H	Time alarms	Apr. 5, 1892
455,788	Chase, H. A	Telegraphy, fire, alarms and extinguishers	July 14, 1891
465,987	Chase, H. A	Telegraphy, fire	Dec. 29, 1891
465,990	Chase, H. A	do	Dec. 29, 1891
471,534	Chase, H. A	Telegraphy, fire, variable signal, dial	Mar. 29, 1892
472,983	Chase, H. A	do	Apr. 19, 1892
474,945	Chase, H. A	do	May 17, 1892
458,221	Chase, M. C	Insulators	Aug. 27, 1891

No.	NAME.	CLASS.	DATE.
455,812	Chase, H. A. and Eaton, H. F.	Telegraphy, fire	July 14, 1891
455,813	Chase, H. A. and Eaton, H. F.	Telegraphy, circuit closers, thermal	July 14, 1891
465,981	Champion, P. C. E.	Lighting, systems	Dec. 29, 1891
462,662	Chapman, H. E.	Lights, arc, special features	Nov. 3, 1891
462,663	Chapman, H. E.	do	Nov. 3, 1891
465,426	Chappell, C. P.	Cut-outs, mechanical	Dec. 15, 1891
459,266	Chassagne, P. J.	Lights, incandescent, special features	Sept. 8, 1891
467,153	Chatard, F. E.	Valve controllers	Jan. 19, 1892
477,645	Childs, W. A.	Batteries, galvanic	June 28, 1892
462,348	Chinnoek, C. E.	Machine brakes	Nov. 3, 1891
468,787	Cheaney, F. A.	Railway signals, block systems	Feb. 16, 1892
473,186	Choate, P. C.	Electrolysis, aqueous bath	Apr. 19, 1892
477,647	Christy, B. J.	Boiler coverings	June 28, 1892
467,917	Christy, J. A.	Telephones, supports	Feb. 2, 1892
471,535	Christy, J. A. and Baldwin, E. J.	Telephones, details	Mar. 29, 1892
458,617	Clark, E. P.	Regulators	Sept. 1, 1891
458,618	Clark, E. P.	do	Sept. 1, 1891
463,595	Clark, E. P.	Lights, arc, gravity feed, clutch	Nov. 17, 1891
458,154	Clarke, G. D.	Igniting devices, automatic	Aug. 25, 1891
477,100	Clark, J. H.	Elevators	June 14, 1892
476,733	Clark, M. M.	Batteries, galvanic	June 7, 1892
460,701	Cleveland, W. B.	Cut-outs, electro-magnetic	Oct. 6, 1891
462,033	Cleveland, W. B.	Cut-outs, mechanical	Oct. 27, 1891
467,919	Clough, A. L.	Cut-outs, electro-magnetic	Feb. 2, 1892
456,940	Cobb, S. H.	do	Aug. 4, 1891
460,428	Coffin, C. L.	Heating, soldering	Sept. 29, 1891
462,207	Coffin, C. L.	Metal working, heating	Oct. 27, 1891
463,486	Coffin, C. L.	do	Nov. 17, 1891
463,487	Coffin, C. L.	do	Nov. 17, 1891
470,038	Coffin, C. L.	do	Mar. 1, 1892
475,667	Coffin, C. L.	do	May 24, 1892
475,668	Coffin, C. L.	Magneto-electric	May 24, 1892
477,101	Coffin, C. L.	Metal working, heating	June 14, 1892
472,435	Coffman, J. R.	Magneto-electric	Apr. 5, 1892
465,991	Cole, F. W.	Telegraphy, fire	Dec. 29, 1891
474,214	Collier, A. T.	Telephones, magnetic	May 3, 1892
462,793	Collier, J. D. and Miller, J. K. P.	Car-brakes	Nov. 10, 1891
462,794	Collier, J. D. and Miller, J. K. P.	Telegraphy, railway car	Nov. 10, 1891
462,807	Collier, J. D. and Miller, J. K. P.	Applications, general	Nov. 10, 1891
459,236	Collins, G. C.	Electrolysis	Sept. 8, 1891
460,051	Collins, W. S.	Railways, pneumatic, despatch tubes	Sept. 22, 1891
468,293	Coleman, C. J.	Connectors	Feb. 2, 1892
457,759	Coleman, L. H.	Pen racks and cleaners	Aug. 11, 1891
464,063	Collom, M. H.	Motors	Dec. 1, 1891
466,063	Colville, F. C.	Annunciators, drop	Dec. 29, 1891
464,816	Conkling, W. G.	Separators	Dec. 8, 1891
462,237	Conklin, J. I.	Batteries, secondary	Nov. 3, 1891
463,715	Conklin, J. I.	Railways, systems, overhead	Nov. 24, 1891
463,693	Conklin, J. J.	Electric locomotives	Apr. 26, 1892
459,810	Conly, M. S.	Regulators	Sept. 22, 1891
459,811	Conly, M. S.	do	Sept. 22, 1891
463,755	Connable, F. L. and Harper, T. V.	Medical and surgical, electrodes	Nov. 24, 1891
457,459	Connelly, J. S.	Air and gas engines, explosive	Aug. 11, 1891
466,268	Connor, W. A. and Marsh, J. W.	Conductors	Dec. 29, 1891
462,624	Conroy, T.	Lights, arc, clutch	Nov. 3, 1891
475,300	Cook, V. A.	Telephones, details	May 24, 1892
460,464	Cook, W. S. and M. C. and Morrow, A. H.	Telegraphy, fire, alarms and extinguishers	Sept. 29, 1891
460,771	Coomhes, D. C. and Rowe, W.	Railway signals, block systems	Oct. 6, 1891
473,614	Corporan, C. E.	Railway signals, cab, sectional rail	Apr. 26, 1892
474,218	Cosgrove, J. J., jr.	Railways, systems, conduit	May 3, 1892
477,352	Cottrell, E. H.	Paper manufacture, feeding	June 21, 1892
475,538	Cowgill, M. J.	Lighting, systems	May 24, 1892
471,100	Coyle, A. M.	Elevators	Mar. 22, 1892
476,367	Crane, S. C.	Railways, systems, overhead, trolleys	June 7, 1892
468,473	Crane, M. G. and Cole, F. W.	Telegraphy, fire, repeaters	Feb. 9, 1892
462,808	Cregier, N. B.	Telegraphy, fire	Nov. 10, 1891
476,873	Cregier, N. B.	Telegraphy, railway car	June 14, 1892
457,109	Criggal, J.	Lights, sockets and keys	Aug. 4, 1891
463,945	Crisp, J. A.	Medical and surgical, body-wear	Nov. 24, 1891
473,061	Crockett, C. H. and Allen, C. C.	Electric locks	Apr. 19, 1892
476,739	Cromer, H. I.	Registers	June 7, 1892
463,247	Crowdus, W. A.	Batteries, galvanic	Nov. 17, 1891
463,248	Crowdus, W. A.	do	Nov. 17, 1891
477,247	Cummings, S. K.	Rheostats	June 21, 1892
455,898	Curtis, C. G.	Magneto-electric	July 14, 1891
473,567	Curtis, C. G.	do	Apr. 26, 1892
473,568	Curtis, C. G.	do	Apr. 26, 1892



No.	NAME.	CLASS.	DATE.
472,207	Curtis, F. G	Marine propulsion	Apr. 5, 1892
467,276	Curtiss, J. L	Lights, special features	Jan. 19, 1892
459,491	Currie, S. C. C	Batteries, secondary	Sept. 15, 1891
460,199	Cushing, J. P. and Kelly, W. J	Lighting, systems	Sept. 29, 1891
472,035	Cushman, C. B. and Canfield, H. G	Measuring instruments	Apr. 5, 1892
467,669	Cutler, H. H	Meters	Jan. 26, 1892
463,491	Cutler, J. L	Indicators	Nov. 17, 1891
455,789	Cuttriss, C	Conductors	July 14, 1891
464,959	Cuttriss, C	Telephones, electric	Dec. 15, 1891
475,441	Cuttriss, C	Telegraphy, relays and sounders	May 24, 1892
475,442	Cuttriss, C	Heaters	May 24, 1892
476,368	Daggett, F. B	Magneto-electric	June 7, 1892
455,837	Dahlgren, C. G. and Svensson, J. H	Cut-outs, mechanical	July 14, 1891
471,990	Daily, J. W	Lights, incandescent, special features	Mar. 29, 1892
467,924	Darley, J. W	Motors	Feb. 2, 1892
457,110	Dauffenbach, C	Cut-outs, mechanical, oscillating snap	Aug. 4, 1891
476,613	Davis, C. E	Cut-outs, mechanical	June 7, 1892
477,835	Davis, C. L	Telegraphy, circuits and systems	June 28, 1892
470,552	Davis, J. H	Batteries, galvanic	Mar. 8, 1892
459,678	Davis, J. W. and Farrington, J. B	Friction generators	Sept. 15, 1891
464,216	Day, St. J. V	Magneto-electric	Dec. 1, 1891
470,478	Day, W. G	Telegraphy, fire, automatic	Mar. 8, 1892
470,748	Deacon, S	Cut-outs, mechanical	Mar. 15, 1892
474,001	Dean, J. H	Indicators	May 3, 1892
469,895	Deavs, C	Lights, incandescent, special features	Mar. 1, 1892
467,085	Decker, P	Applications, general	Jan. 12, 1892
473,547	Decker, W	Magneto-electric	Apr. 26, 1892
457,875	De Ferranti, S. Z	Motors, alternating	Aug. 18, 1891
457,836	Degenhardt, F. E	Railways, systems, closed conduit	Aug. 18, 1891
458,316	Degenhardt, F. E	Conductors	Aug. 25, 1891
458,619	Degenhardt, F. E	Railways, systems, closed conduit	Sept. 1, 1891
458,620	Degenhardt, F. E	Railways, systems, overhead, trolleys	Sept. 1, 1891
463,107	Degenhardt, F. E	Conductors	Nov. 10, 1891
460,779	De Jaeger, S. and Zontman, A	Railway signals, cab, sectional rail	Oct. 6, 1891
456,376	Delafor, M	Conductors, underground	July 21, 1891
470,372	Delano, C. H	Telegraphy, circuit closers	Mar. 8, 1892
473,479	Delano, C. H	do	Apr. 26, 1892
461,568	Delany, P. B	Connectors	Oct. 20, 1891
466,664	Delany, P. B	Batteries, galvanic	Jan. 5, 1892
467,651	Delany, P. B	Annunciators, time	Jan. 26, 1892
471,242	De Meritens, A	Metal working, heating	Mar. 22, 1892
467,160	Dent, R	Telephones, supports	Jan. 19, 1892
469,080	Deprez, M	Magneto-electric	Feb. 16, 1892
470,865	Deprez, M. and Carpenter, J	Systems of distribution	Mar. 15, 1892
460,524	Dessant, W. F. Z	Railway signals, sectional rail	Sept. 29, 1891
460,525	Dessant, W. F. Z	Railway signals, cab, sectional rail	Sept. 29, 1891
465,430	Dessant, W. F. Z	Connectors	Dec. 15, 1891
467,478	Dessant, W. F. Z	Railway signals, sectional rail	Jan. 19, 1892
459,610	Desroziere, E	Magneto-electric	Sept. 15, 1891
468,597	Deul, M. A	Indicators	Feb. 9, 1892
471,234	Dewar, H	Lights, arc, gravity feed, clutch	Mar. 22, 1892
464,244	Dewey, M. W	Applications, general	Dec. 1, 1891
464,245	Dewey, M. W	do	Dec. 1, 1891
464,246	Dewey, M. W	Electric locomotives	Dec. 1, 1891
464,247	Dewey, M. W	Heaters	Dec. 1, 1891
464,248	Dewey, M. W	Railways, systems, battery	Dec. 1, 1891
465,359	Dewey, M. W	Electric locomotives	Dec. 15, 1891
473,253	Dewey, M. W	Railways, systems, converter	Apr. 19, 1892
468,948	Dey, H. E	Electric locomotives	Feb. 16, 1892
473,146	Dey, H. E	Batteries, secondary	Apr. 19, 1892
473,147	Dey, H. E	do	Apr. 19, 1892
474,771	Dibble, F. J	Telethermometers	May 10, 1892
472,037	Dickerson, E. N	Batteries, thermal	Apr. 5, 1892
474,469	Dickerson, M	Telegraphy, lightning arresters	May 10, 1892
471,210	Dickinson, C. S	Clock striking	Mar. 22, 1892
456,023	Diekover, J. C. and Scott, W	Time signals	July 14, 1891
465,360	Diehl, P. and Bennett, E. H., jr	Motors	Dec. 15, 1891
465,361	Diehl, P. and Bennett, E. H., jr	do	Dec. 15, 1891
456,803	Dillman, W. C	Annunciators	July 28, 1891
458,947	Dillman, W. C	do	Sept. 1, 1891
466,159	Dillman, W. C	Annunciators, drop	Dec. 29, 1891
472,439	Dillman, W. C	do	Apr. 5, 1892
472,440	Dillman, W. C	do	Apr. 5, 1892
457,761	Dillon, J	Conductors	Aug. 11, 1891
461,195	Dillou, J	do	Oct. 13, 1891
471,730	Dillon, T	Lights, arc, special features	Mar. 29, 1892
477,890	Dillon, T	do	June 28, 1892



No.	NAME.	CLASS.	DATE.
474,003	Dills, E	Lights, incandescent, special features	May 3, 1892
453,844	Dion, L. O	Railways, systems, overhead	Sept. 1, 1891
457,762	Ditmar, A. A. and Falkenhanger, H	Valve controllers	Aug. 11, 1891
464,557	Dixon, L. O	Railways, systems, battery	Dec. 8, 1891
461,569	Dobbie, R. S	Lighting, systems, automatic regulation	Oct. 20, 1891
469,041	Dobbie, R. S	Lights, arc, gravity feed, gear-clutch	Feb. 16, 1892
470,638	Dobbie, R. S	Lights, arc, special features	Mar. 8, 1892
475,544	Dobbie, R. S	Lights, arc and incandescent	May 24, 1892
469,515	Dobrowolsky, M. Von Dolivo	Transmission of power	Feb. 23, 1892
466,737	Doig, E. M	Lubricators, loose pulley	Jan. 5, 1892
471,538	Donaldson, W. W. and Macrae, R	Batteries, secondary	Mar. 29, 1892
459,681	Dorenwend, C. H	Medical and surgical, body-wear	Sept. 15, 1891
472,529	Doren, D	Insulators	Apr. 12, 1892
463,416	Dorman, G. E	Magneto-electric	Feb. 9, 1892
470,749	Dorman, G. E	do	Mar. 15, 1892
472,943	Dorman, G. E	do	Apr. 12, 1892
470,994	Draper, D	Telegraphy, circuit closers	Mar. 15, 1892
458,785	Driscoll, T	Lubricators, loose pulley	Sept. 1, 1891
477,250	Du Bois-Reymond, A. E	Transmission of power	June 21, 1892
465,655	Dudley, W. J	Clocks, electric	Dec. 22, 1891
465,265	Duggan, J. A	Towers, telegraph poles	Dec. 15, 1891
461,424	Du Laney, J. W	Clocks, electric	Oct. 20, 1891
461,423	Du Laney, J. W. and C. F	do	Oct. 20, 1891
469,995	Dunbar, F. W	Annunciators, drop systems	Mar. 1, 1892
476,618	Dunbar, F. W	Telegraphy, circuits and systems	June 17, 1892
463,733	Duncan, W	Lubricators, loose pulley	Nov. 24, 1891
460,958	Dunn, L	Telegraphy, railway car	Oct. 13, 1891
473,832	Dunn, L	do	Apr. 26, 1892
467,716	Dunn, P	Lights, sockets and keys	Jan. 26, 1892
462,477	Duval, A. and Nelson, H	Globes	Nov. 3, 1891
470,557	Dyer, C. M	Telegraphy, relays and sounders	Mar. 8, 1892
455,873	Eaton, H. F	Telegraphy, fire	July 14, 1891
468,107	Eaton, H. F	Telegraphy, fire, variable signal	Feb. 2, 1892
468,170	Ebert, W	Annunciators	Feb. 2, 1892
462,349	Eckstrom, A	Cut-outs, thermal	Nov. 3, 1891
462,693	Edgerton, N. H	Batteries, secondary	Nov. 10, 1891
457,343	Edison, T. A	Applications, general	Aug. 11, 1891
459,535	Edison, T. A	Lights, incandescent	Sept. 22, 1891
460,122	Edison, T. A	Batteries, galvanic	Sept. 29, 1891
462,540	Edison, T. A	Lights, incandescent	Nov. 3, 1891
464,822	Edison, T. A	Systems of distribution	Dec. 8, 1891
465,970	Edison, T. A	Magneto-electric	Dec. 29, 1891
465,971	Edison, T. A	Telegraphy, circuits and systems	Dec. 29, 1891
465,973	Edison, T. A	Magneto-electric	Dec. 29, 1891
466,400	Edison, T. A. and Ott, J. T	Cut-outs, thermal	Jan. 5, 1892
466,460	Edison, T. A	Electrolysis, fused bath	Jan. 5, 1892
468,949	Edison, T. A	Railways, systems, converter	Feb. 16, 1892
468,950	Edison, T. A	Magneto-electric	Feb. 16, 1892
470,922	Edison, T. A	Lights, filaments and carbons	Mar. 15, 1892
470,923	Edison, T. A	Railway signals	Mar. 15, 1892
470,924	Edison, T. A	Conductors	Mar. 15, 1892
470,925	Edison, T. A	Lights, filaments and carbons	Mar. 15, 1892
470,926	Edison, T. A	Magneto-electric	Mar. 15, 1892
470,927	Edison, T. A	Gearing, belts	Mar. 15, 1892
470,928	Edison, T. A	Magneto-electric	Mar. 15, 1892
470,929	Edison, T. A	Separators	Mar. 15, 1892
470,930	Edison, T. A	Magneto-electric	Mar. 15, 1892
474,230	Edison, T. A	Telephones, electric	May 3, 1892
474,231	Edison, T. A	do	May 3, 1892
474,232	Edison, T. A	do	May 3, 1892
474,592	Edison, T. A	Conveyors, endless belt	May 10, 1892
475,491	Edison, T. A	Electric locomotives	May 24, 1892
475,492	Edison, T. A	do	May 24, 1892
475,493	Edison, T. A	do	May 24, 1892
475,494	Edison, T. A	Railways, systems	May 24, 1892
476,527	Edison, T. A	Lighting, systems	June 7, 1892
476,528	Edison, T. A	Lights, incandescent	June 7, 1892
476,529	Edison, T. A	Telegraphy, lightning arresters	June 7, 1892
476,530	Edison, T. A	Cut-outs, thermal	June 7, 1892
476,531	Edison, T. A	Lighting, systems	June 7, 1892
476,983	Edison, T. A	Pyro-magneto electric devices	June 14, 1892
476,985	Edison, T. A	Railways, systems, overhead, trolleys	June 14, 1892
476,986	Edison, T. A	Gearing, belts	June 14, 1892
476,987	Edison, T. A	Electric locomotives	June 14, 1892
476,988	Edison, T. A	Telegraphy, lightning arresters	June 14, 1892
476,989	Edison, T. A	Railways, systems, conduit	June 14, 1892
476,990	Edison, T. A	Meters	June 14, 1892

No.	NAME.	CLASS.	DATE.
476,991	Edison, T. A	Electric purifiers	June 14, 1892
476,992	Edison, T. A	Lights, incandescent	June 14, 1892
476,993	Edison, T. A	Lights, arc, positive feed, gear-clutch	June 14, 1892
460,571	Edwards, D. W	Railways, systems, overhead	Oct. 6, 1891
471,351	Evans, D. N	Steam heaters	Mar. 22, 1892
465,592	Evans, O. F	Electric locomotives	Dec. 22, 1891
474,375	Evans, O. F	Railways, conductor supports and insulators	May 10, 1892
458,545	Egan, C. E	Railways, systems, battery	Aug. 25, 1891
473,619	Eickemeyer, R	Magneto-electric	Apr. 26, 1892
464,152	Eickemeyer, R	Telephones, electric	Dec. 1, 1891
469,917	Eickemeyer, R	Magneto-electric	Mar. 1, 1892
473,618	Eickemeyer, R	do	Apr. 26, 1892
460,372	Elkins, W. H	Regulators	Sept. 29, 1891
455,855	Eldredge, E. C	Batteries, galvanic	July 14, 1891
469,129	Elieson, C. P.	Batteries, secondary	Feb. 16, 1892
470,784	Elkins, W. H	Regulators	Mar. 15, 1892
470,785	Elkins, W. H	do	Mar. 15, 1892
474,165	Elkins, W. H	do	May 3, 1892
474,166	Elkins, W. H	do	May 3, 1892
476,192	Elliott, C. B	Railways, conductor supports and insulators	May 31, 1892
476,193	Elliott, C. B	do	May 31, 1892
473,066	Elliott, S. G	Amalgamators, mercury	Apr. 19, 1892
467,748	Ellis, F. A	Clocks, electric	Jan. 26, 1892
474,953	Ellis, A. L	Regulators	May 17, 1892
464,298	Ellison, R	Towers, telegraph poles	Dec. 1, 1891
465,844	Emmner, J., jr	Railways, systems, conduit	Dec. 29, 1891
463,754	Engert, G. N	Igniting devices, manual	Nov. 24, 1891
468,053	Englund, A. H	Insulators	Feb. 2, 1892
455,790	Entz, J. B	Magneto-electric	July 14, 1891
461,823	Entz, J. B. and Phillips, W. A	Batteries, secondary	Oct. 27, 1891
467,573	Entz, J. B. and Phillips, W. A	do	Jan. 26, 1892
465,093	Erickson, A	Medical and surgical, body-wear	Dec. 15, 1891
466,058	Erickson, C. A	Measuring instruments	Dec. 29, 1891
475,759	Ericsson, O	Meters	May 31, 1892
473,386	Ernley, J. E	Batteries, galvanic	Apr. 19, 1892
468,775	Etheridge, M. V. B	Printing, rotary	Feb. 9, 1892
477,652	Etheridge, H	Telegraphy, printing	June 28, 1892
457,763	Eltringham, W. P	Lights, filaments and carbons	Aug. 11, 1891
466,492	Facer, W. E	Telegraphy, circuits and systems	Jan. 5, 1892
460,572	Farmer, M. G	Telegraphy, printing, wheel	Oct. 6, 1891
455,815	Farnham, I. H	Batteries, galvanic	July 14, 1891
461,467	Farrar, M. O. and Howe, C. C	Insulating materials	Oct. 20, 1891
455,856	Farrington, C. H	Magneto-electric	July 14, 1891
456,021	Fancher, L. N	Medical and surgical, body-wear	July 14, 1891
461,570	Favor, L. B	Cut-outs, thermal	Oct. 20, 1891
459,170	Farquhar, H. C	Railway cars, platforms	Sept. 8, 1891
460,048	Farwell, F. M	Connectors	Sept. 22, 1891
462,677	Fay, T. J	Lights, sockets and keys	Nov. 3, 1891
463,808	Fehr, L. A	Cut-outs, mechanical	Nov. 24, 1891
474,632	Fehr, L. A	Lighting, systems	May 10, 1892
470,294	Feldkamp, F. A	Music, electrical actions	Mar. 8, 1892
456,888	Feilbogen, M	Systems of distribution	July 28, 1891
456,889	Feilbogen, M	do	July 28, 1891
471,352	Ferdinand, A. B	Telephones, systems, intermediate sub-station	Mar. 22, 1892
468,599	Ferraris, E	Separators	Feb. 9, 1892
461,745	Field, C. H. and C. H., jr	Engraving machines	Oct. 20, 1891
476,007	Finch, H	Telephones, electric	May 31, 1892
460,125	Fink, W. M	Motors	Sept. 29, 1891
470,666	Firman, L. B	Telegraphy, fire	Mar. 15, 1891
470,667	Firman, L. B	do	Mar. 15, 1892
464,475	Fisher, H. W	Conductors, lead-covered	Dec. 1, 1891
465,933	Fisher, H. W	Cut-outs, thermal	Dec. 29, 1891
472,444	Fish, J	Stone working, drills	Apr. 5, 1892
455,984	Fiske, H. G	Separators	July 14, 1891
455,985	Fiske, H. G	do	July 14, 1891
456,507	Fiske, H. G	do	July 21, 1891
468,336	Fiske, J. P. B	Railways, conductor supports and insulators	Feb. 9, 1892
472,617	Fiske, B. A	Distance instruments	Apr. 12, 1892
473,661	Fitz Gerald, J	Lights, incandescent, special features	Apr. 26, 1892
457,151	Flagg, I. J	Lights, sockets and keys	Aug. 4, 1891
476,376	Fleming, W. B	Valve controllers	June 7, 1892
461,868	Fleming, J. H	Connectors	Oct. 27, 1891
456,558	Flick, O. C	Batteries, secondary	July 28, 1891
464,299	Florian, H. A	Magneto-electric	Dec. 1, 1891
458,784	Forsbacker, C. A. C	Applications, general	Sept. 1, 1891
465,469	Foster, C. S	Railways, systems, overhead, trolleys	Dec. 22, 1891
461,239	Foster, H. A	Conductors, underground	Oct. 13, 1891



No.	NAME.	CLASS.	DATE.
465,470	Foster, H. A.	Shade supports	Dec. 22, 1891
472,346	Foster, H. A.	Lighting, systems	Apr. 5, 1892
464,067	Foster, M. H.	Coin-controlled apparatus, article delivery, oscillatory	Dec. 1, 1891
463,384	Foster, W. W.	Igniting devices, manual	Nov. 17, 1891
468,440	Fortier, C. L.	Fire engines, stationary	Feb. 9, 1892
461,748	Fouts, L. F.	Annunciators, drop	Oct. 20, 1891
470,752	Fowler, W.	Alarms	Mar. 15, 1892
477,206	Franklin, B.	Time alarms	June 21, 1892
458,656	Freeman, J. P.	Cut-outs, electro-magnetic	Sept. 1, 1891
470,237	Freeman, C. A.	Conductors, underground	Mar. 8, 1892
460,634	Fricker, S. T.	Railways, conductor supports and insulators	Oct. 6, 1891
474,552	Friel, C. E.	Railways, systems, overhead, trolleys	May 10, 1892
459,721	Froloff, N. and Snobotin, W.	Lighting, systems	Sept. 15, 1891
472,447	Fyfe, J. C.	Railways, systems, closed conduit	Apr. 5, 1892
471,968	Gallagher, J.	Street light hangers	Mar. 29, 1892
460,277	Gardiner, J. B.	Batteries, galvanic	Sept. 29, 1891
473,871	Gardner, F.	Railways, systems, battery	Apr. 26, 1892
455,316	Garl, M.	Annunciators	July 7, 1891
462,311	Garland, F. M.	Lighting, systems, car	Nov. 3, 1891
463,121	Garland, F. M.	Magneto-electric, couplings	Nov. 10, 1891
466,781	Garland, F. M.	Valve-controllers	Jan. 12, 1892
458,386	Garland, N. M.	Lights, arc, special features	Aug. 25, 1891
458,387	Garland, N. M.	do	Aug. 25, 1891
458,388	Garland, N. M.	do	Aug. 25, 1891
458,389	Garland, N. M.	do	Aug. 25, 1891
470,820	Garland, W. H.	Connectors	Mar. 15, 1892
463,420	Garland, F. X.	Railways, conductor supports and insulators	Nov. 17, 1891
459,442	Garrett, H.	Alarms	Sept. 15, 1891
463,035	Gaston, J. E.	Light, arc, positive feed, gear-clutch	Nov. 10, 1891
475,727	Gaston, J. E.	Lights, arc, gravity feed, gear-clutch	May 24, 1892
461,075	Gates, W. L.	Electric toys	Oct. 13, 1891
461,076	Gates, W. L.	do	Oct. 13, 1891
475,938	Gathorpe, T.	Telegraphy, circuits and systems	May 31, 1892
477,175	Gaylord, C. H.	Magneto-electric	June 14, 1892
466,604	Gaynor, T. F.	Telegraphy, fire	Jan. 5, 1892
467,372	Gendron, F.	Batteries, galvanic	Jan. 19, 1892
466,825	Gendron, P.	Metal working, heating	Jan. 12, 1892
459,686	Gerrard, C. L.	Railways, conductor supports and insulators	Sept. 15, 1891
459,990	Ghegan, J. J.	Telegraphy, duplex	Sept. 22, 1891
463,138	Gibboney, J. W.	Telephones, electric	Nov. 17, 1891
474,008	Gibboney, J. W.	Regulators	May 3, 1892
474,447	Gibboney, J. W.	do	May 10, 1892
474,523	Gibboney, J. W.	Indicators	May 10, 1892
468,654	Gibbs, G.	Connectors	Feb. 9, 1892
471,237	Gibbs, J. S.	Cut-outs, mechanical, oscillating snap	Mar. 22, 1892
471,993	Gibbs, J. S.	Cut-outs, mechanical, sliding	Mar. 29, 1892
477,407	Gibbs, J. S.	Lights, sockets, and keys	June 21, 1892
464,337	Gibson, M. B.	Velocipedes	Dec. 1, 1891
462,403	Gillette, H.	Railway gates, electric	Nov. 3, 1891
462,698	Giles, J. E.	Lights, arc, gravity feed, gear-clutch	Nov. 10, 1891
461,240	Gilliland, E. T.	Magneto-electric	Oct. 13, 1891
468,172	Gilman, W. H.	Measuring instruments	Feb. 2, 1892
469,135	Godefroy, A. F.	Heaters	Feb. 16, 1892
471,732	Goehst, J. H.	Lights, incandescent, special features	Mar. 29, 1892
477,931	Gold, J. S.	Telephones, details	June 28, 1892
471,693	Golden, W. T. and Atkinson, L. B.	Magneto-electric	Mar. 29, 1892
477,932	Gold, J. S. and McAlpine, A. H.	Paper clips	June 28, 1892
455,711	Goode, L. G.	Motors, reciprocating	July 7, 1891
468,274	Goodson, G. A.	Electric toys	Feb. 2, 1892
468,338	Goodson, G. A.	do	Feb. 9, 1892
473,699	Goodhne, C. F.	Valve controllers	Apr. 26, 1892
477,753	Goold, F. D'A.	Insulators	June 28, 1892
474,319	Goodrich, C. F.	Railways, conductor supports and insulators	May 3, 1892
455,747	Goodridge, W. M.	Cut-outs, mechanical	July 14, 1891
472,947	Goodridge, W. M.	Telephones, switch-boards	Apr. 12, 1892
467,792	Goodridge, W. M.	Cut-outs, mechanical	June 14, 1892
476,793	Goodridge, W. M.	Telephones, systems	June 14, 1892
468,500	Gorges, J. F. H.	Lighting, systems	Feb. 9, 1892
470,821	Gosman, H.	Time checks	Mar. 15, 1892
471,543	Goss, W. C.	Railways, systems, conduit	Mar. 29, 1892
461,573	Gould, C. C.	Telephones, switches	Oct. 20, 1891
469,732	Goulding, J. C.	Telephones, supports	Mar. 1, 1892
460,962	Gonyard, G. M.	Separators	Oct. 13, 1891
464,096	Grabau, L.	Electrolysis, fused bath	Dec. 1, 1891
464,097	Grabau, L.	do	Dec. 1, 1891
465,369	Grabau, L.	do	Dec. 15, 1891



No.	NAME.	CLASS.	DATE.
456,219	Granert, E.	Medical and surgical, body-wear.	July 21, 1891
466,562	Grant, P.	Lights, incandescent.	Jan. 5, 1892
475,107	Grantland, J. W.	Railways, systems, conduit.	May 17, 1892
469,347	Graves, W.	Lights, arc, gravity feed, clutch.	Feb. 23, 1892
461,470	Gray, E.	Telegraphy, automatic.	Oct. 20, 1891
461,471	Gray, E.	do.	Oct. 20, 1891
461,472	Gray, E.	do.	Oct. 20, 1891
461,473	Gray, E.	do.	Oct. 20, 1891
461,474	Gray, E.	do.	Oct. 20, 1891
470,786	Gray, S. W.	Telephones, calls.	Mar. 15, 1892
462,813	Gray, W.	Coin-controlled apparatus, miscellaneous.	Nov. 10, 1891
469,649	Gray, W.	Coin-controlled apparatus.	Feb. 23, 1892
469,650	Gray, W.	do.	Feb. 23, 1892
465,432	Green, G. F.	Railways, systems.	Dec. 15, 1891
475,394	Green, H.	Lights, incandescent.	May 24, 1892
455,320	Green, R. W.	Telegraphy, keys.	July 7, 1891
464,770	Gecen, J. J. and Brown, G. C.	Insulators.	Dec. 8, 1891
474,907	Greene, G. P.	Annunciators, drop systems.	May 10, 1892
458,249	Greenamyer, C. V.	Car brakes.	Aug. 25, 1891
459,088	Greenfield, E. T.	Lights, sockets and keys.	Sept. 8, 1891
459,704	Greenfield, E. T.	Cut-outs, thermal.	Sept. 15, 1891
459,705	Greenfield, E. T.	Lights, incandescent, special features.	Sept. 15, 1891
461,677	Greenfield, E. T.	Conductors, underground.	Oct. 20, 1891
469,208	Greenfield, E. T.	Conductors.	Feb. 16, 1892
469,469	Greenfield, E. T.	do.	Feb. 23, 1892
469,470	Greenfield, E. T.	do.	Feb. 23, 1892
477,409	Greenfield, E. T.	Cut-outs, mechanical, oscillating snap.	June 21, 1892
455,532	Gregory, F. L.	Clocks, electric.	July 7, 1891
455,322	Griffiths, J. R.	Railways, systems, overhead, trolleys.	July 7, 1891
468,246	Grissinger, E. A.	Telephones, magnetic.	Feb. 2, 1892
469,085	Grissinger, E. A. and T.	Telephones, electric.	Feb. 16, 1892
471,310	Gwodeff, E.	Anti-induction devices.	Mar. 22, 1892
460,674	Gross, A.	Advertising, signs.	Oct. 6, 1891
11,210	Groswith, H.	(Reis.) Motors.	Dec. 15, 1891
470,425	Grumbacher, F. M.	Metalloids.	Mar. 8, 1892
472,453	Guerne, C. E. and Martin, G. H.	Music, electric actions.	Apr. 5, 1892
472,261	Gülcher, R. J.	Batteries, thermal.	Apr. 5, 1892
467,576	Gutman, H. J.	Lights, incandescent.	Jan. 26, 1892
474,826	Gutman, H. J.	Lights, sockets and keys.	May 17, 1892
458,162	Gutmann, L.	Motors, alternating.	Aug. 25, 1891
458,163	Gutmann, L.	Heaters.	Aug. 25, 1891
458,164	Gutmann, L.	Motors, alternating.	Aug. 25, 1891
463,314	Gutmann, L.	do.	Nov. 17, 1891
467,537	Gutmann, L.	Motors.	Jan. 26, 1892
467,538	Gutmann, L.	Heaters.	Jan. 26, 1892
469,241	Gritten, W. and Parmley, A.	Conductors.	Feb. 23, 1892
456,325	Haaberthur, B.	Clocks, electric.	July 21, 1891
460,864	Hadley, E. W.	Railway signals, cab, sectional rail.	Oct. 6, 1891
456,408	Hadlock, W. E.	Conductors, underground.	July 21, 1891
472,479	Hagen, A. A.	Elevators, hatchways.	Apr. 5, 1892
460,963	Haight, H. J.	Clocks, electric.	Oct. 13, 1891
467,504	Haight, H. J.	Cut-outs, mechanical.	Jan. 26, 1892
467,505	Haight, H. J.	Indicators.	Jan. 26, 1892
473,174	Haight, H. J.	Annunciators, step-by-step.	Apr. 19, 1891
474,735	Haight, H. J.	Weather vanes.	May 10, 1892
469,471	Hailstone, W. W.	Valve controllers.	Feb. 23, 1892
462,331	Hale, C. A.	Bells.	Nov. 3, 1891
474,827	Hale, F. W.	Music, electric actions.	May 17, 1892
477,301	Hale, P. and Sparks, C. H.	Alarms, burglar.	June 21, 1892
462,315	Hall, O. B.	Towers, telegraph poles, electric wire supports.	Nov. 3, 1891
473,222	Hall, R. J.	Ships' logs.	Apr. 19, 1892
475,555	Halvorson, C. A. B.	Lights, sockets and keys.	May 24, 1892
469,940	Hammond, C. N.	Insulators.	Mar. 1, 1892
457,116	Hard, J. R.	Batteries, galvanic.	Aug. 4, 1891
466,784	Harte, W. F.	Annunciators, time.	Jan. 12, 1892
459,706	Hart, G. W.	Cut-outs, mechanical, rotary.	Sept. 15, 1891
467,250	Harding, E. R.	Railways, systems, overhead, trolleys.	Jan. 19, 1892
470,123	Harris, H. I.	Batteries, galvanic.	Mar. 1, 1892
476,200	Harrison, E. W.	Telephones, electric.	May 31, 1892
477,656	Haselwander, F.	Telegraphy, lightning arresters.	June 23, 1892
455,398	Haskins, C. D.	Telegraphy, quadruplex.	July 7, 1891
470,428	Hassan, M. W.	Railways, systems, telpher.	Mar. 8, 1892
471,790	Hassan, M. W.	do.	Mar. 29, 1892
474,828	Hathaway, P.	Inductariums, induction coils.	May 17, 1892
460,503	Hay, W.	Bells.	Sept. 29, 1891
465,525	Hayden, E. S.	Electrolysis, aqueous bath apparatus.	Dec. 22, 1891
456,817	Hayes, H. V.	Telephones, switches.	July 23, 1891

No.	NAME.	CLASS.	DATE.
469,474	Hayes, H. V.	Telephones, supports	Feb. 23, 1892
469,522	Hayes, H. V.	Conductors	Feb. 23, 1892
474,323	Hayes, H. V.	Telephones, systems	May 3, 1892
455,986	Hayes, H. V. and Hibbard, A. S.	Batteries, galvanic	July 14, 1891
457,477	Hayes, H. V. and Lears, H. D.	Telephones, systems, automatic	Aug. 11, 1891
458,753	Hayes, H. V. and White, A. C.	Cut-outs, thermal	Sept. 1, 1891
469,475	Hayes, H. V. and Stone, J. S.	Conductors, anti-inductive	Feb. 23, 1892
463,720	Hays, W. S.	Lights, arc, gravity feed, clutch	Nov. 24, 1891
459,456	Havnes, D. J. and Allen, O.	Railway signals, cab, sectional rail	Sept. 15, 1891
466,870	Heineman, D.	Annunciators	Jan. 12, 1892
474,169	Hellinger, A.	Steam engines, speed governors, marine	May 3, 1892
472,500	Henderson, J. W.	Railway signals	Apr. 5, 1892
458,702	Henderson, J. C. and Sargent, F.	Magneto-electric, couplings	Sept. 1, 1891
472,806	Henneberg, H. O.	Telephones, electric	Apr. 12, 1892
471,053	Henry, A. J.	Coin-controlled apparatus, article delivery, rotary	Mar. 15, 1892
457,778	Heron, W. B.	Railways, systems, closed conduit	Aug. 18, 1891
466,037	Herdman, F. E.	Elevators	Dec. 29, 1891
473,393	Heroult, P. L. T.	Electrolysis, fused bath	Apr. 19, 1892
460,575	Herrick, A. B.	Meters	Oct. 20, 1891
474,957	Herrick, A. B.	Rheostats	May 17, 1892
456,271	Herrick, C. H.	Conductors	July 21, 1891
463,192	Herrick, C. H. and Rand, W. M.	Cut-outs, electro-magnetic	Nov. 17, 1891
473,229	Hess, E. C.	Telephones, details	Apr. 19, 1892
473,256	Hess, E. C.	do	Apr. 19, 1892
460,087	Hewett, E. M. S.	Motors	Sept. 22, 1891
461,631	Hewitt, R. J.	Insulators	Oct. 20, 1891
467,169	Hickley, P.	Lights, filaments and carbons	Jan. 19, 1892
465,853	Hicks, T. H.	Motors, alternating	Dec. 29, 1891
465,854	Hicks, T. H.	Systems of distribution	Dec. 29, 1891
465,855	Hicks, T. H.	Magneto-electric	Dec. 29, 1891
465,994	Hicks, T. H.	do	Dec. 29, 1891
464,022	Hield, W. J.	Connectors	Dec. 1, 1891
461,262	Hieronymus, P.	Batteries, galvanic	Oct. 13, 1891
472,352	Hill, L.	Insulating materials	Apr. 5, 1892
470,566	Hill, T.	Metal working, heating	Mar. 8, 1892
457,534	Hill, W. S.	Motors	Aug. 11, 1891
460,967	Hill, J. T. and Meiring, B.	Railways, rails	Oct. 13, 1891
471,549	Hills, J. E.	Telephones, supports	Mar. 29, 1892
466,283	Hinds, J. L.	Lights, sockets and keys	Dec. 29, 1891
466,289	Hinds, J. L.	do	Dec. 29, 1891
466,290	Hinds, J. L.	do	Dec. 29, 1891
459,749	Hipwell, H. H.	Lamps and gas fittings, guards	Sept. 22, 1891
462,707	Hipwood, G.	Railways, systems, overhead, trolleys	Nov. 10, 1891
464,156	Hirber, V.	Friction generators	Dec. 1, 1891
473,117	Héroult, P.	Electrolysis, fused bath	Apr. 19, 1892
473,118	Héroult, P.	do	Apr. 19, 1892
471,792	Hirsh, R.	Magneto-electric	Mar. 29, 1892
474,600	Hirsh, R. and Meininger, H.	do	May 10, 1892
473,504	Hitchcock, H. K.	Cut-outs, mechanical, sliding	Apr. 26, 1892
463,315	Hocket, J. A.	Electric locomotives	Nov. 17, 1891
463,793	Hodgson, E. J. and Stearns, J. W.	Lighting, systems	Nov. 24, 1891
459,503	Hodnit, J.	Magneto-electric	Sept. 15, 1891
460,232	Hoen, W.	Lubricators, loose pulley	Sept. 29, 1891
459,852	Hoffmann, C. P. and Van Houten, W. B.	Medical and surgical, baths	Sept. 22, 1891
472,430	Hofmann, E.	Lights, arc, gravity feed, clutch	Apr. 5, 1892
462,305	Hoffman, W. D.	Separators	Nov. 17, 1891
467,287	Hogan, J. E.	Valve controllers	Jan. 19, 1892
459,633	Hoestmann, H. C.	Railway signals, cab, sectional rail	Sept. 15, 1891
475,399	Hoet, C. F.	Measuring instruments, register	May 24, 1892
467,465	Holmes, F. S.	Electric locks	Jan. 19, 1892
463,512	Holmes, P. H.	Lights, filaments and carbons	Nov. 17, 1891
460,963	Holmes, O. B. and Gale, G. F.	Lights, incandescent, special features	Oct. 13, 1891
470,155	Holson, A. B.	Applications, general	Mar. 1, 1892
477,897	Hollar, W. H. and Holmes, F. S.	Electric locks	June 28, 1892
477,898	Hollar, W. H. and Holmes, F. S.	do	June 28, 1892
470,627	Hollingsworth, S. P.	Electric locomotives	Mar. 8, 1892
470,129	Holloway, W., jr.	Railway signals, cab, sectional rail	Mar. 1, 1892
469,248	Holman, S. W.	Conductors, anti-inductive	Feb. 23, 1892
463,959	Holty, T. H.	Graphophone, acoustics	Nov. 24, 1891
463,990	Holty, T. H.	Devices for phonographs	Nov. 24, 1891
464,136	Holtzer, C. W. and Cabot, G. E.	Regulators	Dec. 1, 1891
466,787	Holtzer, C. W. and Cabot, G. E.	Galvanometers	Jan. 12, 1892
462,353	Hoopes, M.	Cut-outs, mechanical	Nov. 3, 1891
467,738	Horton, W. P., jr.	Dental instruments	Jan. 26, 1892
470,194	Hosford, H. H.	Magneto-electric	Mar. 8, 1892
473,929	Hosford, H. H.	Motors, reciprocating	May 3, 1892



No.	NAME.	CLASS.	DATE.
465,752	Howard, H	Metal working, heating	Jan. 26, 1892
472,055	Howard, H	do	Apr. 5, 1892
473,003	Howard, H	do	Apr. 19, 1892
459,205	Howard, J. H	Telephones, switches	Sept. 8, 1891
459,213	Howard, J. H	do	Sept. 8, 1891
459,214	Howard, J. H	do	Sept. 8, 1891
471,745	Howard, J. H	Telephones, calls	Mar. 29, 1892
473,463	Howard, J. H	Batteries, galvanic	Apr. 26, 1892
465,665	Howard, W. K., jr	Street-light hangers	Dec. 22, 1891
460,140	Howell, J. W	Cut-outs, thermal	Sept. 29, 1891
473,628	Howes, A. P	Fire engines, stationary	Apr. 26, 1892
475,504	Hoyt, A. O. and Leffler, P. W	Railways, systems, overhead	May 24, 1892
471,612	Hubbell, H	Cut-outs, mechanical	Mar. 29, 1892
467,102	Huber, E. and Kneupper, F. G	Indicators	Jan. 12, 1892
458,625	Hudman, W. J	Induction coils	Sept. 1, 1891
461,611	Hudson, C. E	Railways, systems, overhead	Oct. 20, 1891
466,686	Huguet, C. K	Meters	Jan. 5, 1892
473,841	Hulin, L	Lights, filaments and carbons	Apr. 26, 1892
460,391	Hull, W. S	Electric locks	Sept. 29, 1891
470,329	Hultman, C. A. W	Conductors, underground	Mar. 8, 1892
468,108	Hunt, C. W	Telegraphy, fire, variable signal	Feb. 2, 1892
468,451	Hunt, J	Magneto-electric, hand machines	Feb. 9, 1892
476,463	Hunter, J. H	Bells	June 7, 1892
455,796	Hunter, R. M	Railways, systems, telpher	July 14, 1891
456,513	Hunter, R. M	Railways, systems, conduit	July 21, 1891
456,514	Hunter, R. M	Railways, systems, overhead	July 21, 1891
457,736	Hunter, R. M	Railways, systems, conduit	Aug. 11, 1891
459,815	Hunter, R. M	Railways, systems, overhead	Sept. 22, 1891
460,071	Hunter, R. M	Systems of distribution	Sept. 22, 1891
460,504	Hunter, R. M	Sewing machines, special machines	Sept. 29, 1891
460,505	Hunter, R. M	do	Sept. 29, 1891
460,506	Hunter, R. M	do	Sept. 29, 1891
460,508	Hunter, R. M	do	Sept. 29, 1891
462,219	Hunter, R. M	Railways, systems, overhead, trolleys	Oct. 27, 1891
462,407	Hunter, R. M	Cut-outs, mechanical	Nov. 3, 1891
462,926	Hunter, R. M	Heaters	Nov. 10, 1891
468,912	Hunter, R. M	Railways, systems	Feb. 16, 1892
472,708	Hunter, R. M	Regulators	Apr. 12, 1892
474,472	Hunter, R. M	Railways, systems, conduit	May 10, 1892
471,759	Huntress, J. H	Towers, skeleton	Mar. 29, 1892
469,856	Hurd, J. B	Telegraphy, circuits and systems	Mar. 1, 1892
477,940	Hurd, J. F	Alarms, burglar	June 28, 1892
471,819	Hussey, C. A	Magneto-electric	Mar. 29, 1892
474,473	Hutchins, G. K	Cut-outs, mechanical	May 10, 1892
467,230	Hutchinson, C. T	Regulators	Jan. 19, 1892
467,699	Hutchinson, W. B	Railways, systems, closed conduit	Jan. 26, 1892
474,960	Hutchinson, J. and Herrick, A. B	Lighting, systems, hand regulation	May 17, 1892
461,437	Iden, C. W	Batteries, thermal	Oct. 20, 1891
458,396	Irish, W. F	Cut-outs, thermal	Aug. 25, 1891
473,158	Imeson, T., Tibbetts, L. D. and Kellogg, L. F	Railways, conductor supports and insulators	Apr. 19, 1892
463,756	Jacobs, C. A	Insulators	Nov. 24, 1891
466,306	Jacobs, H. E	Telegraphy, fire	Dec. 29, 1891
476,464	Jackson, C. E	Conductors	June 7, 1892
473,190	Jackson, U. S	Railway signals, block systems	Apr. 19, 1892
472,124	Jaeger, C. L	Measuring instruments	Apr. 5, 1892
472,359	Jaggard, R. W	Railway signals, block system	Apr. 5, 1892
463,154	Jandus, W	Lights, arc, special features	Nov. 17, 1891
456,574	Jarboe, W. S., Seibert, W. P. and White, J	Railways, conductor supports and insulators	July 28, 1891
475,566	Jardine, C. K	Time checks	May 24, 1892
469,806	Jenney, C. D	Magneto-electric	Mar. 1, 1892
474,388	Jenney, C. D	do	May 10, 1892
469,652	Jennings, W. C	Lighting, systems	Feb. 23, 1892
462,901	Jones, F. W	Telegraphy, quadruplex	Nov. 10, 1891
477,866	Jones, R. H	Telephones, magnetic	June 28, 1892
459,753	Jones, R. M	Railways, systems, overhead	Sept. 22, 1891
464,129	Jones, R. M	do	Dec. 1, 1891
474,835	Jones, J. and J., jr	Annunciators, time	May 17, 1892
459,509	Johns, H. W	Conductors	Sept. 15, 1891
465,564	Johns, H. W	do	Dec. 22, 1891
474,834	Johns, H. W	Boiler coverings	May 17, 1892
462,489	Johnson, E. H	Conductors	Nov. 3, 1891
469,944	Johnson, E. H	Gearing	Mar. 1, 1892
473,228	Johnson, E. H	Cut-outs, mechanical, oscillating snap	Apr. 19, 1892
462,669	Johnson, F. A	Lights, arc, special features	Nov. 3, 1891
456,827	Johnson, W. H	Clutches, longitudinal, movable with projection	July 28, 1891
463,155	Johnson, W. J. O	Electric locks	Nov. 17, 1891
459,839	Johnston, A. L	Lighting, systems	Sept. 22, 1891



NO.	NAME.	CLASS.	DATE.
459,840	Johnston, A. L.	Lighting, systems	Sept. 22, 1891
469,253	Johnston, A. L.	do	Feb. 23, 1892
455,510	Jordan, L. F.	Telegraphy, railway car	July 7, 1891
476,388	Judson, C. N.	Elevators, hatchways	June 7, 1892
469,802	Jungbauer, J.	Time alarms	Mar. 1, 1892
476,151	Kaedding, W.	Magneto-electric	May 31, 1892
464,025	Kammeyer, C. E.	Galvanometers	Dec. 1, 1891
464,026	Kammeyer, C. E.	Magneto-electric	Dec. 1, 1891
464,027	Kammeyer, C. E.	do	Dec. 1, 1891
461,681	Kantz, J. C.	Metalloids	Oct. 20, 1891
472,169	Kato, J. J. and Rhodes, T. H.	Telephones, systems, toll	Apr. 5, 1892
474,912	Keating, A. S.	Batteries, galvanic	May 17, 1892
453,630	Keller, E. E.	Railways, systems, closed conduit	Sept. 1, 1891
460,780	Keller, E. E.	do	Oct. 6, 1891
460,781	Keller, E. E.	Railways, systems, overhead, trolleys	Oct. 6, 1891
459,523	Keller, J. N. and McCoy, J. A.	Conductors	Sept. 15, 1891
472,265	Kelly, J. F.	Meters	Apr. 5, 1892
466,244	Kelly, W. J.	Cut-outs, mechanical, sliding	Dec. 29, 1891
466,245	Kelly, W. J.	Lighting, systems, hand regulation	Dec. 29, 1891
457,561	Kennedy, R.	Heaters	Aug. 11, 1891
461,139	Kennedy, R.	Systems of distribution	Oct. 13, 1891
461,140	Kennedy, R.	Magneto-electric	Oct. 13, 1891
470,199	Kennedy, R.	Transmission of power	Mar. 8, 1892
471,311	Kerekes, P.	Alarms	Mar. 22, 1892
466,101	Kerstein, M.	Railways, systems	Dec. 29, 1891
470,382	Kerstein, M.	Lighting, systems	Mar. 8, 1892
460,972	Kessner, O. A.	Rheostats	Oct. 13, 1891
455,545	Kibler, J. B.	Figure toys	July 7, 1891
457,837	Kilbourn, W. H.	Steam valves, throttle	Aug. 18, 1891
457,838	Kilbourn, W. H.	Valve controllers	Aug. 18, 1891
470,143	Kilbourn, W. H.	do	Mar. 1, 1892
466,052	Kimball, J. L.	Lights, sockets and keys	Dec. 29, 1891
464,367	Kimble, S. W.	Insulating materials	Dec. 1, 1891
464,368	Kimble, S. W.	Connectors	Dec. 1, 1891
464,369	Kimble, S. W.	Insulating materials	Dec. 1, 1891
464,370	Kimble, S. W.	Railways, systems, overhead, trolleys	Dec. 1, 1891
464,371	Kimble, S. W.	Railways, conductor supports and insulators	Dec. 1, 1891
451,148	Kinney, J. E., Brown, J. H. and Wade, C. G.	Elevated carrier, sheave frame catch	July 21, 1891
470,806	Kinsman, F. E.	Railway signals, cab, sectional rail	Mar. 15, 1892
468,507	Kintner, A. E.	Electric locks	Feb. 16, 1892
457,902	Kintner, C. J.	Motors	Aug. 18, 1891
473,932	Kintner, C. J.	Lighting, systems	May 3, 1892
470,057	Kintzing, R. C.	Magneto-electric	Mar. 1, 1892
467,540	Klein, C. J.	Cut-outs, mechanical, rotary	Jan. 26, 1892
471,645	Klein, C. J.	Lights, sockets and keys	Mar. 29, 1892
477,374	Klein, C. J.	Cut-outs, mechanical, oscillating snap	June 21, 1892
466,539	Kling, P. M.	Electric locomotives	Jan. 5, 1892
463,809	Klotzbach, C.	Conductors	Nov. 24, 1891
463,810	Klotzbach, C.	do	Nov. 24, 1891
455,339	Knight, W. H.	Railways, systems, conduit	July 7, 1891
455,340	Knight, W. H.	do	July 7, 1891
455,341	Knight, W. H.	do	July 7, 1891
455,342	Knight, W. H.	do	July 7, 1891
455,343	Knight, W. H.	do	July 7, 1891
455,798	Knight, W. H.	Railways, systems, overhead, trolleys	July 14, 1891
458,582	Knight, W. H.	Railways, systems, circuits, multiple arc	Sept. 1, 1891
458,583	Knight, W. H.	Railways, systems, conduit	Sept. 1, 1891
458,584	Knight, W. H.	Electric locomotives	Sept. 1, 1891
458,747	Knight, W. H.	Railways, systems, conduit	Sept. 1, 1891
461,549	Knight, W. H.	do	Oct. 20, 1891
464,505	Knight, W. H.	do	Dec. 8, 1891
459,510	Knowles, E. R.	Lights, arc, gravity feed, gear-clutch	Sept. 15, 1891
477,214	Knowles, S., Jr.	Telegraphy, fire, alarms and extinguishers	June 21, 1892
458,755	Koehlin, M.	Meters	Sept. 1, 1891
460,019	Krusehke, R. C.	Alarms, burglar	Sept. 22, 1891
469,349	Kubler, E. G.	Alarms	Feb. 23, 1892
466,931	Kuehnle, J.	Railways, systems, overhead, trolleys	Jan. 12, 1892
457,816	Kunhardt, D.	Telegraphy, automatic	Aug. 18, 1891
458,585	Kunhardt, D.	Telegraphy, circuits and systems	Sept. 1, 1891
474,667	Kurz, W. D. and Anderson, H.	Lighting, systems	May 10, 1892
461,760	La Burt, J.	Railway signals, cab, sectional rail	Oct. 20, 1891
462,053	Lacey, T. A.	Rheostats	Oct. 27, 1891
463,605	Lahmeyer, W.	Motors	Nov. 17, 1891
456,622	Lain, D. E.	Separators	July 28, 1891
461,023	Lamb, D. M.	Batteries, galvanic	Oct. 13, 1891
461,024	Lamb, D. M.	do	Oct. 13, 1891
461,025	Lamb, D. M.	do	Oct. 13, 1891

No.	NAME.	CLASS.	DATE.
461,026	Lamb, D. M.	Batteries, galvanic	Oct. 13, 1891
461,027	Lamb, D. M.	do	Oct. 13, 1891
473,121	Lane, T. W.	Annunciators, drop	Apr. 19, 1892
475,402	Lange, T.	Electrolysis, aqueous bath, zinc	May 24, 1892
455,440	Lannert, J. A.	Time checks	July 7, 1891
465,594	La Roche, T. A.	Lighting, systems	Dec. 22, 1891
465,278	Lawler, J. J.	Alarms	Dec. 15, 1891
459,786	Lean, G. R.	Cut-outs, electro-magnetic	Sept. 22, 1891
461,761	Lean, G. R.	Cut-outs, mechanical	Oct. 20, 1891
473,240	Leavey, G. F.	Shade supports	Apr. 19, 1892
469,257	Leber, L. H.	Regulators	Feb. 23, 1892
467,940	Lee, C. T.	Railways, conductor supports and insulators	Feb. 2, 1892
467,941	Lee, C. T.	Insulators	Feb. 2, 1892
467,942	Lee, C. T.	Railways, conductor supports and insulators	Feb. 2, 1892
455,451	Le Gueur, E. A.	Electrolysis, aqueous bath apparatus	July 7, 1891
459,222	Lehmann, F. A.	Applications, general	Sept. 8, 1891
458,176	Lemp, H.	Metal working, heating	Aug. 25, 1891
458,177	Lemp, H.	do	Aug. 25, 1891
462,262	Lemp, H.	Heaters	Nov. 3, 1891
462,263	Lemp, H.	do	Nov. 3, 1891
463,213	Lemp, H.	Cut-outs, thermal	Nov. 17, 1891
465,866	Lemp, H.	Metal working, heating	Dec. 29, 1891
467,255	Lemp, H.	Rheostats	Jan. 19, 1892
473,514	Lemp, H.	Telegraphy, lightning arresters	Apr. 26, 1892
462,261	Lemp, H. and Anderson, C. G.	Heaters	Nov. 3, 1891
467,233	Lemp, H. and Moody, W. S.	do	Jan. 19, 1892
463,802	Leonard, H. W.	Transmission of power	Nov. 24, 1891
468,099	Leonard, H. W.	Lighting, systems	Feb. 2, 1892
468,100	Leonard, H. W.	Elevators	Feb. 2, 1892
476,544	Leonard, H. W.	Lighting, systems	June 7, 1892
458,178	Lester, C.	Time alarms	Aug. 25, 1891
464,730	Lester, C.	do	Dec. 8, 1891
456,997	Levison, W. G.	Shade supports	Aug. 4, 1891
462,564	Levy, J.	Towers, telegraph poles	Nov. 3, 1891
459,588	Lewis, G. E.	Railways, systems, overhead, trolleys	Sept. 15, 1891
459,385	Libbey, H. W.	Conductors	Sept. 8, 1891
460,587	Libbey, H. W.	Lights, arc, gravity feed, gear-clutch	Oct. 6, 1891
460,680	Libbey, H. W.	Lights, filaments and carbons	Oct. 6, 1891
471,526	Libbey, H. W.	do	Mar. 22, 1892
457,356	Lieb, C. A.	Railways, systems, overhead, trolleys	Aug. 11, 1891
461,582	Lieb, C. A.	Railways, conductor supports and insulators	Oct. 20, 1891
461,840	Lieb, C. A.	Railways, systems, overhead, trolleys	Oct. 27, 1891
462,359	Lieb, C. A.	Railways, conductor supports and insulators	Nov. 3, 1891
469,481	Lightbody, C.	Water-closet attachments	Feb. 23, 1892
468,086	Lillard, W. B.	Connectors	Feb. 2, 1892
458,587	Lincoln, J. C.	Car-brakes	Sept. 1, 1891
477,595	Linds, J. L.	Cut-outs, mechanical, oscillating snap	June 21, 1892
477,665	Linville, S. R.	Telegraphy, printing	June 28, 1892
460,089	Lipe, C. E.	Stone working, drills	Sept. 22, 1891
473,123	Lipe, C. E.	Wire working, winding	Apr. 19, 1892
475,781	Lloyd, E. L.	Insulators	May 31, 1892
477,182	Lloyd, H. H.	Batteries, secondary	June 14, 1892
476,207	Locke, F. M.	Insulators	May 31, 1892
474,913	Lockwood, G. F.	Gearing	May 17, 1892
472,623	Lockwood, J. M.	Lighting, systems	Apr. 12, 1892
469,706	Lockwood, W. C.	Telephones, electric	Mar. 1, 1892
458,251	Lord, W. K.	Metronometers	Aug. 25, 1891
459,757	Logan, M. S. and Bailey, J. H.	Lights, arc, gravity feed, clutch	Sept. 22, 1891
461,169	Loomis, F. F.	Telegraphy, fire, non-interfering	Oct. 13, 1891
469,745	Loomis, F. F.	do	Mar. 1, 1892
463,197	Love, J. C.	Railways, systems, conduit	Nov. 17, 1891
469,861	Love, J. C.	Railways, systems, overhead, trolleys	Mar. 1, 1892
458,184	Lovejoy, I. A.	Car ventilation	Aug. 25, 1891
456,493	Lovell, S. H.	Cut-outs, mechanical	July 21, 1891
470,810	Lucas, W. and Garrett, T. A.	Time checks	Mar. 13, 1892
457,127	Luce, W. B.	Motors	Aug. 4, 1891
474,091	Luce, W. B.	Lights, arc, gravity feed, clutch	May 3, 1892
458,424	Lugo, O.	Batteries, secondary	Aug. 25, 1891
458,425	Lugo, O.	do	Aug. 25, 1891
464,198	Lundstedt, O. E.	Electro-magnets	Dec. 1, 1891
472,461	Lundstedt, O. E.	Valve controllers	Apr. 5, 1892
472,579	Lundstedt, O. E.	do	Apr. 12, 1892
472,759	Lundstedt, O. E.	do	Apr. 12, 1892
459,366	Lundell, R.	Magneto-electric	Sept. 8, 1891
459,367	Lundell, R.	do	Sept. 8, 1891
459,368	Lundell, R.	do	Sept. 8, 1891
461,795	Lundell, R.	do	Oct. 20, 1891



No.	NAME.	CLASS.	DATE.
463,953	Lundell, R	Motors	Feb. 16, 1892
469,862	Lundell, R	Magneto-electric	Mar. 1, 1892
467,875	Lungen, A	Telegraphy, circuit closers	Jan. 26, 1892
472,220	Luscomb, H. H	Railways, conductor supports and insulators	Apr. 5, 1892
474,454	Lutcke, C	Batteries, galvanic	May 10, 1892
461,355	Lyons, B	Window guards	Oct. 13, 1891
453,635	Lyons, J. E	Magneto-electric	Nov. 24, 1891
457,879	Madden, A. F	Founding, soft metal machines	Aug. 18, 1891
457,880	Madden, A. F	Batteries, secondary	Aug. 18, 1891
471,527	Madden, A. F	Metal founding	Mar. 22, 1892
470,498	Mader, F. W	Games and toys	Mar. 8, 1892
476,054	Magenis, J. P	Telephones, electric	May 31, 1892
477,427	Maguire, F. V	Lights, arc, positive feed, gear-clutch	June 21, 1892
464,342	Mahana, J. B	Railways, systems	Dec. 1, 1891
455,631	Maigert, E. and Sahates, J	Sugar and salt, deflecting	July 7, 1891
457,357	Mailloux, C. O	Electric locomotives	Aug. 11, 1891
457,358	Mailloux, C. O	Magneto-electric	Aug. 11, 1891
457,359	Mailloux, C. O	Electric locomotives	Aug. 11, 1891
467,542	Mailloux, C. O	Magneto-electric	Jan. 26, 1892
467,543	Mailloux, C. O	Batteries, secondary, applications	Jan. 26, 1892
467,544	Mailloux, C. O	do	Jan. 26, 1892
467,545	Mailloux, C. O	do	Jan. 26, 1892
467,546	Mailloux, C. O	do	Jan. 26, 1892
467,547	Mailloux, C. O	do	Jan. 26, 1892
469,482	Manchester, F. H	Lights, incandescent	Feb. 23, 1892
469,483	Manchester, F. H	do	Feb. 23, 1892
478,011	Mangan, T	Coin counters	June 28, 1892
457,545	Mangan, T. and Buckley, J. P	Fare registers	Aug. 11, 1891
475,783	Manger, F. W. and Huebel, O. H	Bells	May 31, 1892
476,156	Manwaren, A. H	Lighting, systems, test	May 31, 1892
461,685	Mansfield, F	Railways, systems, closed conduit	Oct. 20, 1891
471,997	Manship, E. A	Cut-outs, electro-magnetic	Mar. 29, 1892
457,865	Manson, G. T	Connectors	Aug. 18, 1891
463,428	Maret, J	Telegraphy, relays and sounders	Nov. 17, 1891
476,887	Marinowitch, B. and Szawady, G	Coin-controlled apparatus, telephoned	June 14, 1892
470,942	Markof, L. M. V	Ordnance, electric appliances	Mar. 15, 1892
460,725	Markle, J. R	Conductors	Oct. 6, 1891
458,551	Marmand, J. L	Insulating materials	Aug. 25, 1891
466,250	Marsh, J. W	Conductors	Dec. 29, 1891
456,673	Martain, F	Coin-controlled apparatus, photographs	July 28, 1891
475,879	Martin, J. C	Store service, propulsion	May 31, 1892
459,013	Martin, M	Telegraphy, fire, alarms and extinguishers	Sept. 8, 1891
464,510	Martin, M	Telegraphy, fire, automatic	Dec. 8, 1891
471,130	Martin, M	Telegraphy, circuit closers, thermal	Mar. 22, 1892
474,670	Martin, M	Telegraphy, fire, alarms and extinguishers	May 10, 1892
465,997	Martratt, G. B	Cut-outs, mechanical, rotary	Dec. 29, 1891
461,797	Marshall, J. T	Lights, filaments and carbons	Oct. 20, 1891
472,193	Marshall, W	Systems of distribution	Apr. 5, 1892
472,379	Marshall, W	do	Apr. 5, 1892
471,302	Marx, J	Cut-outs, thermal	Mar. 22, 1892
468,955	Mason, J	Coin-controlled apparatus, induction coils	Feb. 16, 1892
472,062	Masury, J. R	Rheostats	Apr. 5, 1892
459,143	Mathews, H. W	Medical and surgical, body-wear	Sept. 8, 1891
459,144	Mathews, H. W	do	Sept. 8, 1891
477,950	Mathews, S. M	Alarms	June 28, 1892
457,559	Matterbury, E. D. and Rankin, A. E	Game counters	Aug. 18, 1891
467,511	Matson, D. B	Lights, arc, special features	Jan. 26, 1892
466,541	Marvin, H. N	Transmission of power	Jan. 5, 1892
467,509	Marvin, H. N	do	Jan. 26, 1892
467,510	Marvin, H. N	do	Jan. 26, 1892
473,848	Mayer, J. F	Telephones, switch-boards	Apr. 26, 1892
461,979	Mayer, M	Magneto-electric	Oct. 27, 1891
456,835	McBride, J	Valve controllers	July 28, 1891
457,454	McCann, W. R. and Creider, S. S	Indicators	Aug. 11, 1891
465,772	McCarthy, L	Lights, incandescent, special features	Feb. 9, 1892
468,773	McCarthy, L	do	Feb. 9, 1892
458,236	McCarthy, L. C	Magneto-electric	Aug. 25, 1891
463,843	McCaskey, J. L	Time checks	Nov. 24, 1891
469,424	McConnell, A. C	Alarms	Feb. 23, 1892
455,904	McCracken, E. D	Conductors	July 14, 1891
456,120	McCracken, E. D	do	July 14, 1891
459,378	McCracken, E. D	do	Sept. 8, 1891
461,706	McCutcheon, W. J., jr	Lights, sockets and keys	Oct. 20, 1891
462,574	McCutcheon, W. J., jr	do	Nov. 3, 1891
460,235	McDonald, J. B	Batteries, secondary	Sept. 29, 1891
460,059	McElroy, J. F	Regulators	Sept. 22, 1891
473,637	McElroy, J. F	Connectors	Apr. 26, 1892



No.	NAME.	CLASS.	DATE.
475,514	McElroy, J. F.	Lighting, systems, car	May 24, 1892
469,656	McElroy, J. F.	do	Feb. 23, 1892
455,488	McGahan, F. L.	Magneto-electric	July 7, 1891
455,971	McGahan, F. L.	do	July 14, 1891
461,105	McGahan, F. L.	Lubricators, miscellaneous	Oct. 13, 1891
459,591	McMahon, J. P.	Telegraphy, fire, automatic	Sept. 15, 1891
460,650	McIntosh, L. D.	Galvanometers	Oct. 6, 1891
475,410	McKay, H. S.	Motors, reciprocating	May 24, 1892
458,063	McKee, C. H.	Railways, systems, overhead	Aug. 18, 1891
475,411	McKenna, A. S.	Meters	May 24, 1892
461,887	McKivitt, W. E.	Telephones, systems	Oct. 27, 1891
465,046	McLain, W. R.	Cut-outs, thermal	Dec. 15, 1891
458,856	McLaughlin, J. F.	Magneto-electric	Sept. 1, 1891
475,335	McLaughlin, J. F.	Batteries, secondary	May 24, 1892
455,968	MacLaughlan, J. R.	do	July 14, 1891
477,218	McLeod, J. D.	Conductors, underground	June 21, 1892
462,014	McNear, G. W.	Railways, systems, closed conduit	Oct. 27, 1891
472,219	McNellis, C.	Lights, arc, special features	June 21, 1892
471,491	McFighe, T. J.	Railways, conductor supports and insulators	Mar. 22, 1892
476,473	Mcars, R. S.	Medical and surgical, body-wear	June 7, 1892
462,444	Meech, H. B.	Lights, incandescent, special features	Nov. 3, 1891
475,698	Meech, H. B.	Globes	May 24, 1892
463,198	Mellett, L.	Valve controllers	Nov. 17, 1891
471,271	Metzger, A.	Cut-outs, mechanical	Mar. 22, 1892
477,951	Metzger, C. A.	Railways, conductor supports and insulators	June 28, 1892
457,030	Menus, W. K. and Dudley, W. J.	Clocks, electric	Aug. 4, 1891
473,195	Meyer, G.	Magneto-electric	Apr. 19, 1892
474,673	Meyer, J.	Telegraphy, circuit closers, thermal	May 10, 1892
476,889	Meyer, J. and Binder, C.	Towers, telegraph poles	June 14, 1892
457,453	Meylan, E. and Reckucewiski, W. C.	Meters	Aug. 11, 1891
461,101	Mettler, E. G.	Alarms	Oct. 13, 1891
472,135	Miller, E. G.	Telegraphy, lightning arresters	Apr. 5, 1892
464,979	Miller, G. E.	Railway signals, cab, sectional rail	Dec. 15, 1891
462,720	Miller, K. V.	Telegraphy, circuits and systems	Nov. 10, 1891
466,177	Miller, S.	Batteries, galvanic	Dec. 29, 1891
468,887	Miller, S.	do	Feb. 16, 1892
466,725	Miltimore, A. E.	Ear trumpets	Jan. 5, 1892
476,021	Miner, H. A.	Shade supports	May 31, 1892
457,164	Mitchell, W.	Heating, pressing and ironing	Aug. 4, 1891
457,362	Mitchell, W.	Heaters	Aug. 11, 1891
457,657	Mitchell, W.	Magneto-electric	Aug. 11, 1891
457,745	Mitchell, W.	Heaters	Aug. 11, 1891
459,070	Mitchell, W.	do	Sept. 8, 1891
460,978	Mitchell, W.	do	Oct. 13, 1891
460,979	Mitchell, W.	Domestic boilers	Oct. 13, 1891
460,980	Mitchell, W.	Heaters	Oct. 13, 1891
468,426	Mitchell, W.	Heating, pressing and ironing	Feb. 9, 1892
469,792	Mitchell, W.	do	Mar. 1, 1892
474,398	Mitchell, W.	Heaters	May 10, 1892
474,797	Mitchell, W.	do	May 10, 1892
474,964	Mitchell, W.	do	May 10, 1892
462,321	Moffatt, R. M. and Chichester, S.	Separators	Nov. 3, 1891
462,322	Moffatt, R. M. and Chichester, S.	do	Nov. 3, 1891
458,536	Mohm, G. F.	Medical and surgical, body-wear	Aug. 25, 1891
477,810	Molendo, H.	Cut-outs, thermal	June 28, 1892
466,357	Molitor, C.	Annunciators, drop	Jan. 5, 1892
464,513	Molyneux, B. S.	Indicators	Dec. 8, 1891
468,917	Moore, C. E.	Machine brakes	Feb. 16, 1892
475,286	Moore, J. B.	Lights, incandescent, special features	May 17, 1892
475,334	Moore, W. C.	Telephones, calls, step-by-step	May 24, 1892
470,790	Moore, H. and Jarrard, O. O.	Cut-outs, mechanical	Mar. 15, 1892
457,828	Morford, I. E.	Conductors	Aug. 18, 1891
474,847	Morgan, E. C.	Railways, conductor supports and insulators	May 17, 1892
474,848	Morgan, E. C.	Magneto-electric	May 17, 1892
466,180	Morgan, E. H.	Electric locomotives	Dec. 29, 1891
469,899	Morgan, W. H.	Railways, systems, overhead, trolleys	Mar. 1, 1892
463,867	Morgan, R. A. and Bosson, G. C., jr.	Lighting, systems	Nov. 24, 1891
475,137	Morgenthaler, F.	Electric locks	May 17, 1892
466,138	Morris, H. G. and Salom, P. G.	Batteries, secondary, plates	Dec. 29, 1891
464,676	Morrison, W.	Batteries, secondary	Dec. 8, 1891
474,139	Morse, A. B.	Dampers, automatic	May 3, 1892
474,140	Morse, A. B.	Telegraphy, circuit closers, thermal	May 3, 1892
470,697	Morse, C. H.	Cut-outs, electro-magnetic	Mar. 15, 1892
466,505	Morse, J. S.	Telegraphy, fire, automatic	Jan. 5, 1892
463,748	Morse, S.	Magneto-electric	Nov. 24, 1891
463,164	Morton, F. G.	Boot-blackening machines	Nov. 17, 1891
468,818	Mosely, W.	Telephones, switch-boards	Feb. 16, 1892

No.	NAME.	CLASS.	DATE.
469,486	Moses, P	Lights, filaments and carbons	Feb. 23, 1892
476,292	Moses, P	do	June 7, 1892
457,090	Mosher, J. A	Rheostats	Aug. 4, 1891
467,610	Mosher, J. A	Lights, arc, gravity feed, clutch	Jan. 26, 1892
467,611	Mosher, J. A	Rheostats	Jan. 26, 1892
472,064	Mosher, J. A	Lights, arc, gravity feed, clutch	Apr. 5, 1892
469,262	Mousón, G. S. and Vogel, C	Railways, traction, underground	Feb. 23, 1892
463,639	Mower, S. E	Electric locomotives	Nov. 24, 1891
474,328	Mower, S. E	do	May 3, 1892
462,571	Mueller, E. T	Lights, incandescent, special features	Nov. 3, 1891
457,855	Munger, L. I	Railways, signals	Aug. 48, 1891
470,946	Munsie, J. T	Conductors, underground	Mar. 15, 1892
458,716	Mnnson, H	Clocks, electric	Sept. 1, 1891
468,101	Murphy, J. B	Cut-outs, electro-magnetic	Feb. 2, 1892
467,581	Myers, F. I	Railway signals, sectional rail	Jan. 26, 1892
469,438	Myers, F. I	do	Feb. 23, 1892
455,722	Myers, W. J	Telephones, supports	July 7, 1891
477,220	Naef, J. J	Electrolysis, aqueous bath, tin	June 21, 1892
466,620	Nash, C. E	Telegraphy, fire, variable signal, dial	Jan. 5, 1892
471,999	Nash, N. E. and Eddy, G. A	Valve controllers	Mar. 29, 1892
463,072	Nelson, J. M	Indicators, station	Nov. 10, 1891
462,153	Nesmith, A. D	Railways, systems, conduit	Oct. 27, 1891
467,891	Nen, G. S	Connectors	Jan. 26, 1892
468,253	Neuburger, A	Elevators	Feb. 2, 1892
456,836	Newcomb, W	Railway signals	July 28, 1891
463,955	Newell, H. F	Insulators	Nov. 24, 1891
475,467	Newhouse, J. W	Railways, systems, overhead, trolleys	May 24, 1892
455,410	Newman, A	Time checks	Aug. 7, 1891
457,660	Newman, N	Insulators	Aug. 11, 1891
468,388	Newton, C. O	Conductors	Feb. 9, 1892
458,372	Newton, J. O	Time alarms	Aug. 25, 1891
464,132	Nicholson, W. A	Lights, arc, gravity feed, gear-clutch	Dec. 1, 1891
466,726	Norgrave, G. B	Insulators	Jan. 5, 1892
469,905	North, P	Firearms, ball traps	Mar. 1, 1892
458,479	Noriega, E	Telephones, magnetic	Aug. 25, 1891
469,408	Nourse, R. C. and Lane, T. W	Igniting devices, automatic	Feb. 23, 1892
475,468	Now, F. E	Telegraphy, circuits and systems	May 24, 1892
466,798	Nowotny, J. S	Batteries, galvanic	Jan. 12, 1892
466,053	Noyes, B. J	Telegraphy, fire	Dec. 29, 1891
474,852	Noyes, B. J	do	May 17, 1892
474,853	Noyes, B. J	do	May 17, 1892
462,578	Nuttall, R. D	Railways, systems, overhead, trolleys	Nov. 3, 1891
468,686	O'Brian, J. T	Regulators	Feb. 9, 1892
465,648	O'Brien, T. W	Telephones, systems	Dec. 22, 1891
469,865	O'Brien, T. W	do	Mar. 1, 1892
472,933	O'Connor, T. F	Conductors	Apr. 12, 1892
474,854	O'Connell, J. J	Telephones, systems	May 10, 1892
464,936	Oehrle, W. E	Conductors	Dec. 15, 1891
468,575	Ogden, W. J	Railways, systems, overhead	Feb. 9, 1892
472,019	Ohmart, E. C	Music, electrical actions	Mar. 29, 1892
467,192	Oits, N. P. and Smith, R. C	Elevators	Jan. 19, 1892
455,575	Olán, J. W. T	Meters	July 7, 1891
455,576	Olán, J. W. T	Lights, arc, non-feeding	July 7, 1891
462,504	Olán, J. W. T	Meters	Nov. 3, 1891
470,441	Olán, J. W. T	do	Mar. 8, 1892
460,652	Openlander, E. J	Lights, arc, special features	Oct. 6, 1891
470,973	Ortell, E	Batteries, galvanic	Mar. 1, 1892
478,018	Osburn, H. G	Batteries, secondary	June 28, 1892
476,296	Osgood, R. P	Batteries, galvanic	June 7, 1892
455,763	Osner, W	Railways, systems, conduit	June 14, 1892
466,362	Osner, W	do	Jan. 5, 1892
458,976	Otis, N. P. and Smith, R. C	Motors	Sept. 1, 1891
458,977	Otis, N. P. and Smith, R. C	Elevators	Sept. 1, 1891
455,972	Oudin, P. and Kratz-Boussac, H. O	Lights, incandescent, special features	July 14, 1891
459,127	Overall, G. W	Medical and surgical, chairs and couches	Sept. 8, 1891
469,266	Page, F. C	Alarms, burglar	Feb. 23, 1892
457,327	Paget, L	Magneto-electric	Aug. 4, 1891
457,555	Paget, L	Batteries, secondary	Aug. 11, 1891
465,618	Painter, G. E	Cut-outs, mechanical, oscillating snap	Dec. 22, 1891
466,508	Painter, G. E	Cut-outs, electro-magnetic	Jan. 5, 1892
466,509	Painter, G. E	Lights, incandescent, special features	Jan. 5, 1892
466,510	Painter, G. E	Lights, sockets and keys	Jan. 5, 1892
466,511	Painter, G. E	do	Jan. 5, 1892
477,146	Painter, G. E	do	June 14, 1892
458,427	Palmer, J. H	Railways, conductor supports and insulators	Aug. 25, 1891
462,449	Palmer, J. H	Batteries, secondary	Nov. 3, 1891
475,340	Palmer, F. S. and Desile, L. H	Telegraphy, circuit closers, thermal	May 24, 1892



No.	NAME.	CLASS.	DATE.
467,048	Palmer, J. H.	Motors	Jan. 12, 1892
476,483	Paramore, E. C.	Batteries, secondary	June 7, 1892
463,704	Parcelle, A. L.	Magneto-electric	Nov. 24, 1891
469,712	Parcelle, A. L.	Motors	Mar. 1, 1892
455,352	Park, H. S.	Time alarms	July 7, 1891
477,221	Parkee, L.	Lights, arc, gravity feed, clutch	June 21, 1892
470,701	Parker, G. F. and Crapo, C. E.	Batteries, secondary	Mar. 15, 1892
468,411	Parmly, S. P.	Lights, arc, special features	Feb. 5, 1892
464,655	Parrish, H. A.	Railway signals, track instruments	Dec. 8, 1891
457,058	Parrish, M. W.	do	Aug. 4, 1891
476,813	Pass, J. and Seymour, A. P.	Insulators	June 14, 1892
462,850	Patenall, T. H.	Railway signals, track instruments	Nov. 10, 1891
474,528	Patenall, T. H.	Railway signals	May 10, 1892
464,519	Patterson, W. R.	Telephones, systems	Dec. 8, 1891
472,643	Patterson, W. R.	Conductors	Apr. 12, 1892
476,484	Patterson, W. R.	Conductors, lead-covered	June 7, 1892
473,076	Patin, O.	Lights, arc, gravity feed, gear-clutch	Apr. 19, 1892
475,702	Patton, W. H.	Electric locomotives	May 24, 1892
475,703	Pease, L. E.	Heaters	May 24, 1892
464,253	Peckham, E.	Railway cars	Dec. 1, 1891
473,077	Pepper, D., jr.	Magneto-electric	Apr. 19, 1892
473,078	Pepper, D., jr.	do	Apr. 19, 1892
471,760	Perkins, C. G.	Cut-outs, mechanical	Mar. 29, 1892
11,185	Perkins, F. B.	(Reis.) Elevators	Aug. 4, 1891
461,272	Perret, F. A.	Insulators	Oct. 13, 1891
466,367	Perry, N. W.	Railways, systems, circuits, series	Jan. 5, 1892
466,368	Perry, N. W.	do	Jan. 5, 1892
467,897	Perry, N. W.	do	Jan. 26, 1892
471,686	Perry, W. H.	Annunciators	Mar. 29, 1892
462,732	Pettersen, P. E.	Medical and surgical, body-wear	Nov. 10, 1891
469,319	Phelps, W. J.	Motors	Feb. 23, 1892
466,832	Phillips, E. B.	Electric locomotives	Jan. 12, 1892
468,526	Phillips, E. B.	do	Feb. 9, 1892
474,857	Phillips, E. B.	do	May 10, 1892
466,011	Phillips, H.	Pendulums	Dec. 29, 1891
459,514	Phillips, J. O.	Lights, sockets and keys	Sept. 15, 1891
460,538	Phillips, J. O.	Cut-outs, thermal	Sept. 29, 1891
473,341	Phillips, W. A.	Speed measures	Apr. 19, 1892
464,587	Phillips, W. H.	Railway signals, cab.	Dec. 8, 1891
472,810	Phillipsborn, H. and Reickel, W.	Railways, conductor supports and insulators	Apr. 12, 1892
463,544	Pickernell, F. A.	Telephones, systems, multiple switch-board	Nov. 17, 1891
463,545	Pickernell, F. A.	do	Nov. 17, 1891
466,702	Pickernell, F. A.	Telephones, systems, multiple switch-board, test	Jan. 5, 1892
472,953	Pickett, F. C.	Railways, conductor supports and insulators	Apr. 12, 1892
456,843	Pieper, H.	Batteries, secondary	July 28, 1891
465,865	Pierce, M. S., Desisle, L. H. and Oliver, O. C.	Telegraphy, circuit closers, thermal	Jan. 12, 1892
467,520	Piffard, D. H.	Insulating materials	Jan. 26, 1892
467,982	Piffard, D. H.	Lights, incandescent	Feb. 2, 1892
467,983	Piffard, D. H.	Lights, sockets and keys	Feb. 2, 1892
476,818	Pike, L. S. M. and Harris, E. S.	Magneto-electric	June 14, 1892
476,819	Pike, L. S. M. and Harris, E. S.	do	June 14, 1892
477,223	Pilkington, H. M. and White, R. S.	Galvanometers	June 21, 1892
477,869	Pilkington, H. M. and White, R. S.	Cut-outs, mechanical	June 28, 1892
469,181	Pinkham, C. A.	Telegraphy, circuit closers	Feb. 16, 1892
458,486	Pinkham, H. A.	Igniting devices, manual	Aug. 25, 1891
470,256	Pinkham, H. A.	do	Mar. 8, 1892
466,937	Pfannkuche, G.	Inductoriums, transformers, stationary	Jan. 12, 1892
468,260	Pfannkuche, G.	Regulators	Feb. 2, 1892
474,921	Pfannkuche, G.	Cut-outs, mechanical	May 17, 1892
476,816	Pfannkuche, G. and A.	Induction coils	June 14, 1892
474,403	Pfingst, L.	Railway cars, trucks	May 10, 1892
468,412	Pfuger, C. A.	Lights, arc, special features	Feb. 9, 1892
468,413	Pfuger, C. A.	do	Feb. 9, 1892
470,766	Pfuger, C. A.	do	Mar. 15, 1892
471,190	Pfuger, C. A.	do	Mar. 22, 1892
472,935	Pfuger, C. A.	do	Apr. 12, 1892
473,955	Pfuger, C. A.	Lights, arc, gravity feed, clutch	May 3, 1892
473,956	Pfuger, C. A.	do	May 3, 1892
461,785	Pfousts, L. S.	Railways, conductor supports and insulators	Oct. 20, 1891
456,250	Platt, O. S.	Cut-outs, mechanical	July 21, 1891
464,677	Poleschko, A.	Inductoriums, transformers, stationary	Dec. 8, 1891
477,870	Pollack, S.	Anti-induction devices	June 28, 1892
457,430	Pondroux, F.	Batteries, galvanic	Aug. 11, 1891
456,593	Popp, V.	Regulators	July 28, 1891
468,690	Pool, J. G.	do	Feb. 9, 1892
461,898	Poole, C. P.	Lights, sockets and keys	Oct. 27, 1891



No.	NAME.	CLASS.	DATE.
455,765	Porter, H. H.	Motors	July 14, 1891
467,050	Potter, B. I.	Railways, systems	Jan. 12, 1892
477,913	Potter, W. F.	Medical and surgical, body-wear	June 28, 1892
459,090	Pratt, C. R.	Elevators, controllers	Sept. 8, 1891
472,909	Pratt, C. R.	Elevators	Apr. 12, 1892
465,202	Preston, W. C.	Connectors	Dec. 15, 1891
466,800	Prewitt, W. Q.	Railways, conductor supports and insulators	Jan. 12, 1892
470,596	Price, G. W.	Telegraphy, circuit closers	Mar. 8, 1892
465,886	Pruyn, H. S.	Railways, conductor supports and insulators	Dec. 29, 1891
470,008	Putman, R. C.	Lights, incandescent, special features	Mar. 1, 1892
457,565	Putnam, T. A. B.	Railway signals	Aug. 11, 1891
472,628	Pyke, L. S. M. and Barnett, H. S.	Magneto-electric	Apr. 12, 1892
467,773	Rae, F. B.	Regulators	Jan. 26, 1892
458,489	Ramsey, J., jr., Harden, E. W. and Wilder, C. M.	Railway signals	Aug. 25, 1891
458,188	Rasmussen, E.	Metal working, heating	Aug. 25, 1891
463,711	Reckenzaun, A.	Meters	Nov. 24, 1891
473,960	Reckenzaun, A.	Motors	May 3, 1892
475,797	Reckenzaun, A.	Batteries, galvanic	May 31, 1892
464,256	Redding, H.	Time checks	Dec. 1, 1891
469,376	Redding, H.	Telegraphy, fire	Feb. 23, 1892
470,505	Redmond, J.	Car brakes	Mar. 8, 1892
466,513	Reed, C. J.	Separators	Jan. 5, 1892
466,514	Reed, C. J.	do	Jan. 5, 1892
466,515	Reed, C. J.	do	Jan. 5, 1892
473,236	Reed, C. J.	Type-writing machines	Apr. 19, 1892
473,237	Reed, C. J.	do	Apr. 19, 1892
477,383	Reed, C. J.	Telegraphy, printing	June 21, 1892
477,384	Reed, C. J.	do	June 21, 1892
465,888	Reed, T. L.	Exercising apparatus	Dec. 29, 1891
458,778	Reilly, J. C.	Conductors, underground	Sept. 1, 1891
469,048	Rehnan, J. J.	Street-light hangers	Feb. 16, 1892
460,991	Reinmann, A. L.	Lights, incandescent	Oct. 13, 1891
476,311	Replayle, M. A.	Regulators	June 7, 1892
467,774	Reuter, C. and Bollmann, G.	Alarms	Jan. 26, 1892
456,908	Reynolds, G. H.	Elevators	July 28, 1891
470,260	Riatti, V.	Batteries, galvanic	Mar. 8, 1892
455,800	Rice, E. W., jr.	Cut-outs, thermal	July 14, 1891
455,454	Rice, E. W., jr.	Railways, systems	July 7, 1891
455,887	Rice, E. W., jr.	Magneto-electric	July 14, 1891
460,364	Rice, E. W., jr.	Lighting, systems	Sept. 29, 1891
462,452	Rice, E. W., jr.	Cut-outs, thermal	Nov. 3, 1891
463,770	Rice, E. W., jr.	Lights, incandescent, special features	Nov. 24, 1891
465,292	Rice, E. W., jr.	Motors	Dec. 15, 1891
466,802	Rice, E. W., jr.	Cut-outs, mechanical	Jan. 12, 1892
467,358	Rice, E. W., jr.	Regulators	Jan. 19, 1892
467,645	Richards, F. H.	Separators	Jan. 26, 1892
467,833	Richards, F. H.	do	Jan. 26, 1892
458,343	Richards, P. D.	Telegraphy, circuit closers	Aug. 25, 1891
458,376	Richards, W. S.	Lights, filaments and carbons	Aug. 25, 1891
458,377	Richards, W. S.	Railways, systems, converter	Aug. 25, 1891
475,066	Ricketson, J. C.	Indicators	May 17, 1892
467,199	Riedel, J.	Lights, arc, gravity feed, gear-clutch	Jan. 19, 1892
458,859	Ries, E. E.	Railways, systems, converter	Sept. 1, 1891
465,089	Ries, E. E.	Metal working, heating	Dec. 15, 1891
470,402	Ries, E. E. and Horry, W. S.	Lights, sockets, and keys	Mar. 8, 1892
455,517	Riker, A. L.	Magneto-electric	July 7, 1891
455,518	Riker, A. L.	do	July 7, 1891
455,952	Riley, J. M.	Medical and surgical, body-wear	Sept. 1, 1891
455,953	Riley, J. M.	do	Sept. 1, 1891
459,615	Ritchie, F.	Annunciators, drop	Sept. 15, 1891
469,949	Ritter, J. J.	Heating, soldering	Mar. 1, 1892
464,897	Robare, L. F.	Telegraphy, keys	Dec. 8, 1891
466,576	Robbins, C. P.	Globes	Jan. 5, 1892
469,723	Robbins, E. P.	Conductors, underground	Mar. 1, 1892
460,887	Robbins, I.	Railways, systems, closed conduit	Oct. 6, 1891
459,100	Roberts, E. P.	Lights, incandescent	Sept. 8, 1891
467,523	Roberts, E. P.	do	Jan. 26, 1892
460,595	Roberts, I. L.	Lights, filaments and carbons	Oct. 6, 1891
460,596	Roberts, I. L.	do	Oct. 6, 1891
460,597	Roberts, I. L.	do	Oct. 6, 1891
464,665	Roberts, I. L.	Batteries, secondary	Dec. 8, 1891
11,238	Roberts, I. L.	do	Apr. 26, 1892
462,672	Robertson, A. J.	Railways, systems, conduit	Nov. 3, 1891
459,447	Robertson, J. H.	Batteries, galvanic	Sept. 15, 1891
469,273	Robinson, J.	Telegraphy, dial	Feb. 23, 1892
464,231	Robinson, J. R.	Dental instruments	Dec. 1, 1891

No.	NAME.	CLASS.	DATE.
457,457	Robison, C. W. and S. D	Heaters	Aug. 11, 1891
475,345	Rockwood, F. C	Lights, sockets and keys	May 24, 1892
469,454	Rogers, A. J	Electrolysis, fused bath	Feb. 23, 1892
465,206	Rogers, L. H	Batteries, galvanic	Dec. 15, 1891
468,474	Rohrer, A. L	Cut-outs, mechanical	Feb. 9, 1892
462,741	Rolfe, C. A	Telegraphy, fire	Nov. 10, 1891
470,792	Root, F. H	Batteries, galvanic	Mar. 15, 1892
465,949	Roovers, A. W. and A. H	Medical and surgical, exercising apparatus	Dec. 29, 1891
460,599	Rosenbaum, W. A	Batteries, secondary	Oct. 6, 1891
460,448	Ross, F. A	Insulators	Sept. 29, 1891
474,149	Rowand, L. G	Telegraphy, circuit-closers, thermal	May 3, 1892
477,049	Rowand, L. S	Telegraphy, fire, automatic	June 14, 1892
477,068	Rowand, L. S	do	June 14, 1892
477,069	Rowand, L. S	do	June 14, 1892
477,070	Rowand, L. S	do	June 14, 1892
477,071	Rowand, L. S	Annunciators, drop	June 14, 1892
466,427	Rowell, B. C	Railways, systems, overhead	Jan. 5, 1892
476,317	Rudd, C. H	Lighting, systems, test	June 7, 1892
476,490	Rudd, C. H	do	June 7, 1892
473,713	Rueter, H. A	Conductors	Apr. 26, 1892
472,274	Rushmore, S. W	Lights, arc, gravity feed, gear-clutch	Apr. 5, 1892
462,673	Russell, E. C	Lights, arc, gravity feed, clutch	Nov. 3, 1891
466,956	Russell, E. P	Towers, telegraph poles	Jan. 12, 1892
477,273	Rutherford, N. F	Lights, arc, positive feed	June 21, 1892
477,781	Sachs, J	Insulators	June 28, 1892
455,693	Sample, H. C	Batteries, galvanic	July 7, 1891
456,434	Samuel, E.	Railways, crossings	July 21, 1891
463,691	Samuels, E. J. and Behrendt, F. E	Railway signals	Nov. 24, 1891
458,500	Sander, H. W	Light, arc, positive feed, gear-clutch	Aug. 25, 1891
463,760	Sargent, C. E	Railways, systems, overhead	Nov. 24, 1891
456,598	Sautter, F. L	Lights, arc, positive feed, gear-clutch	July 28, 1891
476,080	Sauche, H	Connectors	May 31, 1892
469,093	Sawyer, H	Lights, arc, positive feed, gear-clutch	Feb. 16, 1892
473,267	Sawyer, W. H	Conductors, anti-inductive	Apr. 19, 1892
473,351	Sawyer, W. H	do	Apr. 19, 1892
473,352	Sawyer, W. H	do	Apr. 19, 1892
473,353	Sawyer, W. H	do	Apr. 19, 1892
461,279	Schiefer, F. W	Time checks	Oct. 13, 1891
465,212	Schilling, G. W	Valve controllers	Dec. 15, 1891
464,780	Schlosser, T. A	Railways, systems, overhead, trolleys	Dec. 8, 1891
475,809	Schmidt, F. M	Clocks, electric	May 31, 1892
475,898	Schneider, F. W. A	Rheostats	May 31, 1892
478,026	Schweiger, C. T. H	Railways, systems, conduit	June 28, 1892
467,239	Schoenmehl, C. B	Batteries, galvanic	Jan. 19, 1892
467,240	Schoenmehl, C. B	do	Jan. 19, 1892
468,697	Schoeniger, R. A	Pneumatic signals	Feb. 9, 1892
470,013	Scott, C. F. and Wurts, A	Telegraphy, lightning arresters	Mar. 1, 1892
470,014	Scott, C. F. and Wurts, A	Cut-outs, thermal	Mar. 1, 1892
455,953	Scribner, C. E	Lights, arc, gravity feed, clutch	July 14, 1891
459,711	Scribner, C. E	Telephones, switch-boards	Sept. 15, 1891
467,656	Scribner, C. E	Lights, arc, gravity feed, clutch	Jan. 26, 1892
467,901	Scribner, C. E	Telephones, systems, multiple switch-board, test	Jan. 26, 1892
467,902	Scribner, C. E	do	Jan. 26, 1892
472,956	Scribner, C. E	Telephones, systems	Apr. 12, 1892
473,089	Scribner, C. E	do	Apr. 12, 1892
473,966	Scribner, C. E	do	May 3, 1892
474,067	Scribner, C. E	do	May 7, 1892
476,492	Scribner, C. E	do	June 7, 1892
476,493	Scribner, C. E	Lights, arc, gravity feed, clutch	June 7, 1892
477,579	Scribner, C. E	Telephones, systems, multiple switch-board, test	June 21, 1892
469,873	Scribner, C. E. and Warner, E. P	Lighting, systems, car	Mar. 1, 1892
461,452	Scrugham, G. R	Connectors	Oct. 20, 1891
476,422	Sechrist, A	Lighting, systems	June 7, 1892
455,581	Seiberling, J. F	Electric locomotives	July 7, 1891
456,600	Seibert, W. P	Railways, conductor supports and insulators	July 28, 1891
457,374	Sedlmeyer, J. H	Lighting, systems	Aug. 11, 1891
476,494	Seely, J. A	Telephones, systems, details	June 7, 1892
476,826	Seely, J. A	Telephones, systems	June 14, 1892
472,772	Seely, J. A. and Scribner, C. E	do	Apr. 12, 1892
473,024	Selden, C	Telegraphy, fire	Apr. 19, 1892
470,793	Sellner, L	Indicators	Mar. 15, 1892
457,135	Serrell, W. C	Railway signals, cab, sectional rail	Aug. 4, 1891
458,665	Seymour, A. P	Railways, systems, overhead, trolleys	Sept. 1, 1891
458,718	Seymour, A. P	Lights, arc, special features	Sept. 1, 1891
476,827	Seymour, A. P	Insulators	June 14, 1892



No.	NAME.	CLASS.	DATE.
476,828	Seymour, A. P	Insulators	June 14, 1892
476,829	Seymour, A. P	Cut-outs, mechanical	June 14, 1892
476,964	Seymour, A. P	Insulators	June 14, 1892
460,287	Shaffer, W. C	Telegraphy, fire, alarms and extinguishers	Sept. 29, 1891
461,371	Shaffer, W. C	do	Oct. 13, 1891
476,830	Shallenberger, O. B	Regulators	June 14, 1892
456,859	Shank, C. H	Street-light hangers	July 28, 1891
461,052	Shaw, A. J	Elevators	Oct. 13, 1891
465,999	Shaw, A. J	do	Dec. 29, 1891
468,752	Shaw, A. J	Rheostats	Feb. 9, 1892
458,729	Shaw, H. F. and G. F	Electric locomotives	Sept. 1, 1891
475,970	Shawhan, J. F	do	May 31, 1892
468,700	Sheldon, J. B	Street-light hangers	Feb. 9, 1892
462,595	Sheldon, J. B. and Murnane, D. J	Railways, systems, closed conduit	Nov. 3, 1891
474,266	Shepard, A. L	Lights, arc, positive feed, gear-clutch	May 3, 1892
469,750	Shepard, S. A. and Lang, F. P	Railways, systems, overhead, trolleys	Mar. 1, 1892
476,026	Sherman, S. F	Telephones, electric	May 31, 1892
474,049	Shcbe, A. A. and Embley, W	Railways, conductor supports and insulators	May 3, 1892
457,870	Shoemaker, M	Railways, systems, conduit	Aug. 18, 1891
456,252	Short, S. H	Railways, conductor supports and insulators	July 21, 1891
456,253	Short, S. H	Electric locomotives	July 21, 1891
456,254	Short, S. H	do	July 21, 1891
458,666	Short, S. H	Lighting, systems	Sept. 1, 1891
456,970	Short, S. H	Electric locomotives	Aug. 4, 1891
457,015	Short, S. H	Railways, systems, overhead, trolleys	Aug. 4, 1891
457,226	Short, S. H	Magneto-electric	Aug. 4, 1891
457,377	Short, S. H	Railways, systems, overhead, trolleys	Aug. 11, 1891
457,378	Short, S. H	do	Aug. 11, 1891
458,956	Short, S. H	Regulators	Sept. 1, 1891
459,024	Short, S. H	Electric locomotives	Sept. 8, 1891
459,689	Short, S. H	Railways, systems, overhead, trolleys	Sept. 15, 1891
459,690	Short, S. H	Electric locomotives	Sept. 15, 1891
459,794	Short, S. H	Rheostats	Sept. 22, 1891
459,820	Short, S. H	Magneto-electric	Sept. 22, 1891
460,040	Short, S. H	Electric locomotives	Sept. 22, 1891
461,690	Short, S. H	Railways, systems, overhead, trolleys	Oct. 20, 1891
461,851	Short, S. H	Railways, systems, circuits, multiple arc	Oct. 27, 1891
462,880	Short, S. H	Magneto-electric	Nov. 10, 1891
462,881	Short, S. H	do	Nov. 10, 1891
462,882	Short, S. H	do	Nov. 10, 1891
463,356	Short, S. H	Electric locomotives	Nov. 17, 1891
462,883	Short, S. H	Magneto-electric	Nov. 10, 1891
467,613	Short, S. H	Rheostats	Jan. 26, 1892
473,361	Short, S. H	Railways, systems, circuits, multiple arc	Apr. 19, 1892
473,362	Short, S. H	Railways, systems, overhead	Apr. 19, 1892
473,363	Short, S. H	Magneto-electric	Apr. 19, 1892
473,364	Short, S. H	do	Apr. 19, 1892
473,365	Short, S. H	Electric locomotives	Apr. 19, 1891
473,366	Short, S. H	Magneto-electric	Apr. 19, 1892
473,367	Short, S. H	do	Apr. 19, 1892
473,368	Short, S. H	Electric locomotives	Apr. 19, 1892
473,674	Short, S. H	do	Apr. 26, 1892
474,031	Short, S. H	do	May 3, 1892
475,159	Short, S. H	Magneto-electric	May 17, 1892
475,160	Short, S. H	Electric locomotives	May 17, 1892
461,057	Shover, B. R. and Dickson, W. C	Railways, systems, converter	Oct. 13, 1891
469,796	Shults, J. W	Medical and surgical, body-wear	Mar. 1, 1892
469,797	Shults, J. W	do	Mar. 1, 1892
477,708	Sigsbee, C. D., Hayward, T. T. and Anderson, F. S.	Rheostats	June 28, 1892
480,768	Silkman, E. J	Telegraphy, printing, wheel	Mar. 15, 1892
463,310	Silver, W. J	Railways, systems, overhead	Nov. 17, 1891
457,483	Silvey, W. L	Cut-outs, electro-magnetic	Aug. 11, 1891
459,535	Silvey, W. L	Batteries, secondary	Sept. 15, 1891
462,020	Silvey, W. L	Regulators	Oct. 27, 1891
467,958	Silvey, W. L	Lights, sockets and keys	Feb. 2, 1892
477,914	Silvey, W. L	Batteries, secondary	June 28, 1892
467,583	Simons, L. A. and Roof, G. R	Railways, systems, overhead, trolleys	Jan. 26, 1892
470,514	Simpson, H.	Conductors, lightning rods	Mar. 8, 1892
470,050	Sisson, H. D	Lights, incandescent, special features	Mar. 1, 1892
461,718	Slater, W. W. and Barnes, H. C	Bells	Oct. 20, 1891
459,448	Sloan, W. E., Hughes, J. E. and Reed, O. S.	Telegraphy, circuits and systems	Sept. 15, 1891
463,257	Smith, C	Railways, systems	Nov. 17, 1891
476,425	Smith, E. F	Lights, arc, gravity feed, gear-clutch	June 7, 1892
458,961	Smith, R. C	Lighting, systems, test	Sept. 1, 1891
459,917	Smith, F. E	Time alarms	Sept. 22, 1891
460,163	Smith, F. F	Railways, systems, overhead, trolleys	Sept. 29, 1891



No.	NAME.	CLASS.	DATE.
471,576	Smith, F. S.	Lights, incandescent	Mar. 29, 1892
460,895	Smith, H. P.	Alarms	Oct. 6, 1891
463,001	Smith, J. B.	do	Nov. 10, 1891
457,382	Smith, M. H.	Railways, systems, conduit	Aug. 11, 1891
460,541	Smith, R. C.	Elevators	Sept. 29, 1891
466,447	Smith, R. C.	do	Jan. 5, 1892
468,903	Smith, R. C.	do	Feb. 16, 1892
471,063	Smith, R. C.	do	Mar. 15, 1892
471,064	Smith, R. C.	do	Mar. 15, 1892
471,625	Smith, R. H.	Connectors	Mar. 29, 1892
463,172	Smith, T. C.	Insulators	Nov. 17, 1891
456,327	Smith, W. F.	Lights, sockets and keys	July 21, 1891
469,280	Smith, W. S.	Railways, systems, overhead, trolleys	Feb. 23, 1892
477,786	Smith, E. L. and Foster, G. C. H.	Lights, sockets and keys	June 28, 1892
455,842	Smith, F. W., jr. and Williamson, S. S.	Steam street cars	July 14, 1891
465,805	Smith, T. C. and Acker, B. D.	Lighting, systems	Dec. 22, 1891
456,006	Snedden, W. T.	Indicators	July 14, 1891
463,079	Snediker, C. T.	Conductors	Nov. 10, 1891
477,787	Snediker, C. T.	do	June 28, 1892
468,880	Sueur, E. A. L.	Electrolysis	Feb. 16, 1892
477,612	Snow, E. A.	Cut-outs, mechanical, oscillating snap	June 21, 1892
463,585	Snow, W. B.	Pneumatic air and gas pumps, rotary	Nov. 17, 1891
463,556	Snyder, L. H.	Telephones, details	Nov. 17, 1891
461,152	Soblik, M.	Telegraphy, automatic	Oct. 13, 1891
473,132	Soden, F. H.	Cut-outs, mechanical	Apr. 19, 1892
473,133	Soden, F. H.	Medical and surgical, body-wear	Apr. 19, 1892
473,134	Soden, F. H.	Cut-outs, mechanical	Apr. 19, 1892
469,281	Sohlman, J.	Magneto-electric	Feb. 23, 1892
461,087	Soley, W. H.	Telegraphy, fire, alarms and extinguishers	Oct. 13, 1891
461,965	Souther, C. N.	Batteries, galvanic	Oct. 27, 1891
463,174	Southland, B. D.	Magneto-electric	Nov. 17, 1891
468,706	Southworth, H. W.	Separators	Feb. 9, 1892
462,022	Spaulding, W. C.	Railways, systems, overhead	Oct. 27, 1891
457,407	Spencer, I.	Inductoriums, transformers, stationary	Aug. 11, 1891
476,933	Spencer, W. M.	Globes	June 14, 1892
466,807	Sperry, E. A.	Railways, systems, overhead	Jan. 12, 1892
469,725	Sperry, E. A.	Magneto-electric	Mar. 1, 1892
470,516	Sperry, E. A.	Electric locomotives	Mar. 8, 1892
471,151	Sperry, E. A.	Railways, conductor supports and insulators	Mar. 22, 1892
476,426	Sperry, E. A.	Regulators	June 7, 1892
476,570	Sperry, E. A.	Cut-outs, thermal	June 7, 1892
11,177	Sperry, E. A. (Reis.)	Steam street cars	July 7, 1891
472,912	Spiegel, W. G.	Magic lanterns	Apr. 12, 1892
467,023	Spittle, G. W.	Cut-outs, electro-magnetic	Jan. 12, 1892
461,552	Sprague, F. J.	Magneto-electric	Oct. 20, 1891
466,448	Sprague, F. J.	do	Jan. 5, 1892
465,806	Sprague, F. J. and O'Shaughnessy, P. F.	Railways, systems, overhead, trolleys	Dec. 22, 1891
468,959	Sprague, F. J. and O'Shaughnessy, P. F.	Railways, systems, overhead	Feb. 16, 1892
466,218	Sprague, F. J. and Pratt, C. R.	Rheostats	Dec. 15, 1891
460,514	Stadelman, W. A.	Cranes and derricks, elevated, double track	Sept. 29, 1891
467,350	Stalman, O.	Electrolysis, aqueous bath, application	Jan. 19, 1892
472,610	Stanley, L. T.	Cut-outs, mechanical	Apr. 12, 1892
472,611	Stanley, L. T.	Lights, incandescent, special features	Apr. 12, 1892
461,135	Stanley, W., jr.	Inductoriums, transformers, stationary	Oct. 13, 1891
469,809	Stanley, W., jr.	Systems of distribution	Mar. 1, 1892
455,773	Stanley, W., jr. and Kelly, J. F.	Motors, alternating	July 14, 1891
464,529	Stanley, W., jr. and Kelly, J. F.	Telephones, systems	Dec. 8, 1891
462,599	Stanton, A.	Medical and surgical, combs and brushes	Nov. 3, 1891
463,297	Starrett, F. H.	Locks and latches	Nov. 17, 1891
465,767	St. Clair, F.	Steam boilers	Dec. 22, 1891
458,134	Steck, E. T.	Fire engines, chemical	Aug. 18, 1891
473,975	Steege, F. W.	Annunciators	May 3, 1892
470,217	Stephens, G.	Magneto-electric	Mar. 8, 1892
475,255	Sterling, W. A.	Rheostats	May 17, 1892
463,340	Stevens, G. M.	Telegraphy, fire, repeaters	Nov. 17, 1891
466,196	Stevens, W. A.	Railways, systems, overhead	Dec. 29, 1891
462,513	Stewart, J. B.	Railway signals, block	Nov. 3, 1891
461,194	Stoner, J. W.	Telegraphy, fire	Oct. 13, 1891
460,676	Storer, A.	Telegraphy, Morse registers	Oct. 6, 1891
463,693	Storev, I. E.	Regulators	Nov. 24, 1891
458,091	Stout, J. V.	Dampers, automatic	Sept. 8, 1891
461,554	Stout, J. V.	Valve controllers	Oct. 20, 1891
461,555	Stout, J. V.	do	Oct. 20, 1891
466,450	Stout, J. V.	do	Jan. 5, 1892
476,573	Stout, J. V.	do	June 7, 1892
478,032	Strand, R. P.	Music, electric actions	June 28, 1892
463,395	Strauss, J. B.	Telegraphy, railway car	Nov. 17, 1891

No.	NAME.	CLASS.	DATE.
469,283	Strauss, J. B.	Connectors	Feb. 23, 1892
457,752	Street, W. W.	Printing, matrix making	Aug. 11, 1891
460,095	Strom, O.	Lights, incandescent, special features	Sept. 22, 1891
477,712	Siromberg, A.	Alarms, burglar	June 28, 1892
458,815	Strubler, C. G.	Recorders, weighing	Sept. 1, 1891
470,158	Sturgeon, C. J.	Elevators	Mar. 1, 1892
477,618	Sundh, A.	Coin-controlled apparatus, weighing	June 21, 1892
477,965	Sunis, C.	Hats, brushing and finishing	June 28, 1892
461,456	Swan, A.	Cut-outs, mechanical	Oct. 20, 1891
463,396	Swan, A.	Cut-outs, mechanical, rotary	Nov. 17, 1891
455,366	Swift, H. E.	Lights, incandescent, special features	July 7, 1891
458,242	Swift, H. E.	Lights, sockets and keys	Aug. 25, 1891
465,396	Synnestvedt, P.	Telegraphy, railway car	Dec. 15, 1891
465,501	Synnestvedt, P.	do	Dec. 22, 1891
473,532	Taintor, G.	Telephones, systems	Apr. 26, 1892
460,722	Tanner, W. J.	Amalgamators	Oct. 6, 1891
477,315	Tapley, W. H.	Telegraphy, circuit closers, thermal	June 21, 1890
466,471	Tatro, C. P.	Railways, systems, closed conduit	Jan. 5, 1892
476,935	Tatro, C. P.	do	June 14, 1892
468,159	Terry, S. M.	Drop lights	Feb. 2, 1892
459,772	Tesla, N.	Motors, alternating	Sept. 22, 1891
462,418	Tesla, N.	Systems of distribution	Nov. 3, 1891
464,666	Tesla, N.	Motors, alternating	Dec. 8, 1891
464,667	Tesla, N.	Telegraphy, condensers	Dec. 8, 1891
459,318	Theilman, W.	Metal working, tubes	Sept. 8, 1891
462,177	Thomas, C. W.	Railways, systems, closed conduit	Oct. 27, 1891
468,708	Thomas, C. W.	Railways, systems, overhead	Feb. 9, 1892
474,977	Thomas, F.	Medical and surgical, electrodes	May 17, 1892
477,081	Thomas, T. C. J.	Gas burners, regenerative	June 14, 1892
459,843	Thomas, V. A.	Insulators	Sept. 22, 1891
459,844	Thomas, V. A.	Towers, telegraph poles	Sept. 22, 1891
459,845	Thomas, V. A.	Lights, arc, special features	Sept. 22, 1891
459,846	Thomas, V. A.	do	Sept. 22, 1891
463,586	Thomas, V. A.	do	Nov. 17, 1891
463,587	Thomas, V. A.	Insulators	Nov. 17, 1891
463,588	Thomas, V. A.	do	Nov. 17, 1891
469,220	Thomas, V. A.	Cut-outs, mechanical, oscillating spring	Feb. 16, 1892
470,455	Thompson, C. T. and Sanders, R. H.	Heaters, separators	Mar. 8, 1892
470,456	Thompson, C. T. and Sanders, R. H.	do	Mar. 8, 1892
471,913	Thompson, J. G.	Electric locks	Mar. 29, 1892
455,420	Thomson, E.	Heaters	July 7, 1891
455,421	Thomson, E.	do	July 7, 1891
456,172	Thomson, E.	Meters	July 21, 1891
458,025	Thomson, E.	Lights, arc, positive feed, gear-clutch	Aug. 18, 1891
458,115	Thomson, E.	Metal working, heating	Aug. 18, 1891
458,646	Thomson, E.	Regulators	Sept. 1, 1891
459,422	Thomson, E.	Magneto-electric	Sept. 15, 1891
459,423	Thomson, E.	Inductariums, transformers, rotary	Sept. 15, 1891
460,765	Thomson, E.	Insulating materials	Oct. 6, 1891
461,144	Thomson, E.	Lights, arc, positive feed, gear-clutch	Oct. 13, 1891
461,526	Thomson, E.	Regulators, alternating	Oct. 20, 1891
461,856	Thomson, E.	Metal working, tools and implements	Oct. 27, 1891
462,338	Thomson, E.	Cut-outs, thermal	Nov. 3, 1891
462,339	Thomson, E.	do	Nov. 3, 1891
463,671	Thomson, E.	Magneto-electric	Nov. 24, 1891
463,761	Thomson, E.	Telegraphy, lightning arresters	Nov. 24, 1891
463,762	Thomson, E.	Cut-outs, mechanical	Nov. 24, 1891
464,595	Thomson, E.	Telegraphy, lightning arresters	Dec. 8, 1891
465,078	Thomson, E.	Regulators, alternating	Dec. 15, 1891
467,318	Thomson, E.	Magneto-electric	Jan. 19, 1892
468,119	Thomson, E.	Cut-outs, mechanical	Feb. 2, 1892
468,120	Thomson, E.	Telegraphy, lightning arresters	Feb. 2, 1892
468,121	Thomson, E.	Magneto-electric	Feb. 2, 1892
468,122	Thomson, E.	Lighting, systems	Feb. 2, 1892
468,497	Thomson, E.	Telegraphy, lightning arresters	Feb. 9, 1892
470,221	Thomson, E.	Railways, systems, overhead	Mar. 8, 1892
470,721	Thomson, E.	Telegraphy, lightning arresters	Mar. 15, 1892
471,155	Thomson, E.	Motors, alternating	Mar. 22, 1892
476,330	Thomson, E.	Cut-outs, thermal	June 7, 1892
476,331	Thomson, E.	Magneto-electric	June 7, 1892
457,036	Thomson, E. and Rice, E. W., jr.	Electric locomotives	Aug. 4, 1891
468,123	Thomson, E. and Rice, E. W., jr.	Lighting, systems	Feb. 2, 1892
462,973	Thomson, E. and Walkefield, W. O.	Magneto-electric	Nov. 10, 1891
473,558	Thomson, W.	Meters	Nov. 17, 1891
465,602	Thomson, W. C.	Alarms, burglar	Dec. 22, 1891
476,700	Thurston, R. H.	Lights, arc, special features	June 7, 1892
465,808	Thury, R.	Magneto-electric	Dec. 22, 1891



No.	NAME.	CLASS.	DATE.
466,760	Thury, R.	Regulators	Jan. 5, 1892
472,084	Thum, M.	Lighting, systems	Apr. 5, 1892
473,594	Thum, M.	do	Apr. 26, 1892
473,595	Thum, M.	Cut-outs, mechanical	Apr. 26, 1892
474,271	Timby, T. R.	Turrets, ship's	May 3, 1892
468,753	Tirrell, J. P.	Steam valves, throttle	Feb. 9, 1892
469,669	Tirrell, J. P.	do	Feb. 23, 1892
456,098	Tietjen, G. H.	Indicators	July 14, 1891
474,584	Tobey, C. W.	Connectors	May 10, 1892
459,872	Tommasi, D.	Lights, incandescent, special features	Sept. 22, 1891
470,722	Tregoning, E.	Lighting, systems	Mar. 15, 1892
457,802	Tripp, I.	Railway cars, trucks	Aug. 11, 1891
468,487	Trippe, S. L.	Lighting, systems	Feb. 9, 1892
461,122	Troy, R. F.	Electric locks	Oct. 13, 1891
458,987	Turbayne, W. A.	Lights, arc, gravity feed, clutch	Sept. 1, 1891
471,296	Turney, E. T.	Railway signals, cab	Mar. 22, 1892
476,843	Tyler, H. L.	Systems of distribution	June 14, 1892
466,865	Tyler, J. W.	Lighting, systems	July 28, 1891
476,334	Ulman, M.	Annunciators, step-by-step	June 7, 1892
471,447	Usher, E. P.	Railways, systems, battery	Mar. 22, 1892
461,991	Van Brunt, E. W., and Raynor, W. M.	Telegraphy, lightning arresters	Oct. 27, 1891
457,446	Van Benthuyzen, F.	Clutches, lever shoe	Aug. 11, 1891
463,694	Vail, W. W.	Inductoriums, transformers, stationary	Nov. 24, 1891
455,520	Van Depoele, C. J.	Transmission of power	July 7, 1891
458,866	Van Depoele, C. J.	Railways, systems, closed conduit	Sept. 1, 1891
458,867	Van Depoele, C. J.	Railways, systems	Sept. 1, 1891
458,868	Van Depoele, C. J.	Stone working, mining machines	Sept. 1, 1891
458,869	Van Depoele, C. J.	Motors, reciprocating	Sept. 1, 1891
458,870	Van Depoele, C. J.	Transmission of power	Sept. 1, 1891
458,871	Van Depoele, C. J.	Railways, systems, telpher	Sept. 1, 1891
458,872	Van Depoele, C. J.	Motors, reciprocating	Sept. 1, 1891
458,873	Van Depoele, C. J.	do	Sept. 1, 1891
458,874	Van Depoele, C. J.	Transmission of power	Sept. 1, 1891
458,954	Van Depoele, C. J.	do	Sept. 1, 1891
460,488	Van Depoele, C. J.	Railways, systems, overhead	Sept. 29, 1891
461,293	Van Depoele, C. J.	Steam street cars	Oct. 13, 1891
461,294	Van Depoele, C. J.	Transmission of power	Oct. 13, 1891
461,295	Van Depoele, C. J.	Motors, reciprocating	Oct. 13, 1891
461,296	Van Depoele, C. J.	Magneto-electric	Oct. 13, 1891
461,297	Van Depoele, C. J.	Transmission of power	Oct. 13, 1891
462,751	Van Depoele, C. J.	Electric locomotives	Nov. 10, 1891
467,448	Van Depoele, C. J.	Railways, systems, overhead, trolleys	Jan. 19, 1892
467,449	Van Depoele, C. J.	Motors	Jan. 19, 1892
467,450	Van Depoele, C. J.	Motors, reciprocating	Jan. 19, 1892
467,451	Van Depoele, C. J.	Transmission of power	Jan. 19, 1892
470,521	Van Depoele, C. J.	Regulators	Mar. 8, 1892
457,239	Van Hoevenbergh, H.	Telegraphy, printing	Aug. 4, 1891
472,237	Van Hoevenbergh, H.	Telegraphy, printing wheel	Apr. 5, 1892
461,298	Van Nort, S. P.	Cut-outs, mechanical	Oct. 13, 1891
455,955	Van Nuis, C. S. and Vail, J. H.	Telegraphy, lightning arresters	July 14, 1891
458,603	Van Nuis, C. S. and Vail, J. H.	Cut-outs, thermal	Sept. 1, 1891
461,969	Vansize, W. B.	Railways, systems, battery	Oct. 27, 1891
470,883	Vanstone, S.	Conductors	Mar. 15, 1892
464,125	Varley, R., jr.	Applications, general	Dec. 1, 1891
464,133	Varley, R., jr.	Telegraphy, relays and sounders	Dec. 1, 1891
464,134	Varley, R., jr.	Cut-outs, mechanical	Dec. 1, 1891
465,809	Varley, R., jr.	Telegraphy, relays and sounders	Dec. 22, 1891
473,717	Varley, R., jr.	Telegraphy, circuit closers	Apr. 26, 1892
476,845	Varley, R., jr.	Bells	June 14, 1892
474,980	Vassar, R. S.	Alarms, burglar	May 17, 1892
456,280	Van Vleck, J.	Rheostats	July 21, 1891
456,683	Verstraete, E.	Towers, telegraph poles	July 28, 1891
457,016	Verstraete, E.	Car-brakes	Aug. 4, 1891
465,034	Verstraete, E.	do	Dec. 15, 1891
477,259	Verstraete, E.	do	Jan. 19, 1892
465,684	Villart, G. E. and Rondel, V. E.	Lights, incandescent, special features	Dec. 22, 1891
456,746	Voelker, H. A.	Inductoriums, induction coils	July 28, 1891
474,109	Vogel, C.	Firearms, targets	May 3, 1892
460,606	Vogler, W.	Conductors, anti-inductive	Oct. 6, 1891
460,607	Vogler, W.	Conductors, underground	Oct. 6, 1891
468,585	Vogler, W.	Conductors	Feb. 9, 1892
476,582	Vogt, C.	Telephones, electric	June 7, 1892
476,583	Vogt, C.	Telephones, magnetic	June 7, 1892
463,763	Voigt, F.	Lights, sockets and keys	Nov. 24, 1891
457,830	Von der Kammer, J.	Lights, filaments and carbons	Aug. 18, 1891
455,683	Von Dolivo-Dobrowolsky, M.	Transmission of power	July 7, 1891
456,804	Von Dolivo-Dobrowolsky, M.	Motors, alternating	July 28, 1891



No.	NAME.	CLASS.	DATE.
469,515	Von Dolivo-Dobrowolsky, M	Transmission of power	Feb. 23, 1892
466,518	Von Orth, L	Clocks, electric	Jan. 5, 1892
460,354	Von Siemens, W	Electrolysis	Sept. 29, 1891
461,858	Waddell, M. and Entz, J. B	Batteries, secondary	Oct. 27, 1891
469,428	Waite, C. N	Batteries, galvanic	Feb. 23, 1892
477,975	Waite, H. E	Medical and surgical, baths	June 28, 1892
465,685	Waldecker, H. C	Lights, arc, special features	Dec. 22, 1891
463,879	Waldron, C. F	Batteries, secondary	Nov. 24, 1891
469,828	Waller, J. E. and Manville, E.	Railways, systems, conduit	Mar. 1, 1892
471,725	Wällgren, E. T	Steam engines, speed governors, marine	Mar. 29, 1892
474,787	Wagner, H. A. and Schmedtmann, F	Motors, alternating	May 10, 1892
459,800	Waite, H. E	Rheostats	Sept. 22, 1891
458,026	Walker, M. F	Projectiles, shells	Aug. 18, 1891
471,837	Walsh, J. J	Street light hangers	Mar. 29, 1892
467,243	Walter, H. E	Car brakes	Jan. 19, 1892
458,719	Ward, B. B.	Lights, arc, gravity feed, gear-clutch	Sept. 1, 1891
458,876	Ward, B. B.	Lights, arc, positive feed, gear-clutch	Sept. 1, 1891
473,536	Ward, B. B.	Lights, arc, gravity feed, gear-clutch	Apr. 26, 1892
472,721	Ward, B. B.	Head lights	Apr. 12, 1892
472,596	Ward, M. M	Railways, conductor supports and insulators	Apr. 12, 1892
457,906	Ward, R. J	Magnetic locks and bolts	Aug. 18, 1891
459,321	Ward, P. and Gregory, E. M	Electric cartridges	Sept. 8, 1891
466,856	Ward, P. and Gregory, E. M	Projectiles	Jan. 12, 1892
470,608	Wardhough, R. E	Dust collectors, rotating	Mar. 8, 1892
457,754	Waring, E. M	Magneto-electric	Aug. 11, 1891
473,435	Warner, E. P	Cut-outs, mechanical	Apr. 19, 1892
477,616	Warner, J. C	Annunciators, drop	June 21, 1892
475,645	Waterhouse, A. G	Lighting, systems	May 24, 1892
463,086	Waterhouse, A. G	do	Nov. 10, 1891
464,682	Waterhouse, A. G	Lights, arc, gravity feed, clutch	Dec. 8, 1891
464,683	Waterhouse, A. G	Motors	Dec. 8, 1891
468,711	Waterhouse, A. G	Lights, arc, gravity feed, clutch	Feb. 9, 1892
474,706	Watkins, R	Telegraphy, relays and sounders	May 10, 1892
459,556	Watt, A	Electrolysis	Sept. 15, 1891
459,633	Walter, H. E	Motors, reciprocating	Sept. 15, 1891
471,986	Watson, N. M	Annunciators, step-by-step	Mar. 29, 1892
471,987	Watson, N. M	Annunciators, drop systems	Mar. 29, 1892
469,361	Watson, R	Elevators	Feb. 23, 1892
475,169	Watson, A. H. and Antoni, F. E	Heaters	May 17, 1892
475,955	Wattson, W. S	Railway signals, block systems	May 31, 1892
463,207	Weaver, E. E	Telegraphy, relays and sounders	Nov. 17, 1891
476,501	Weaver, E. E. and Manypenny, G. B	Lights, incandescent	June 7, 1892
468,185	Webster, L. J	Lighting, systems	Feb. 2, 1892
469,050	Weeks, N., jr	Lights, arc, special features	Feb. 16, 1892
457,687	Weimer, F. A	Lights, incandescent, special features	Aug. 11, 1891
461,657	Weisser, T	Railway signals	Oct. 20, 1891
460,735	Wenks, N., jr	Railways, conductor supports and insulators	Oct. 6, 1891
459,323	Wenste, C	Indicators	Sept. 8, 1891
455,808	Wenström, J	Separators	July 14, 1891
455,809	Wenström, J	do	July 14, 1891
468,755	Wentz, W. F	Telegraphy, circuits and systems	Feb. 9, 1892
457,141	Wertz, X	Lights, incandescent	Aug. 4, 1891
470,634	West, W. A	Telephones, electric	Mar. 8, 1892
465,442	Weston, E	Galvanometers	Dec. 15, 1891
466,087	Weston, E	do	Dec. 29, 1891
470,340	Weston, E	do	Mar. 8, 1892
470,341	Weston, E	do	Mar. 8, 1892
473,538	Weston, E	do	Apr. 26, 1892
473,539	Weston, E	do	Apr. 26, 1892
11,250	Weston, E	do	June 28, 1892
21,445	Weston, E	Case for electrical measuring instruments	Apr. 5, 1892
21,446	Weston, E	do	Apr. 5, 1892
470,204	Weston, G. R. and A. W	Cut-outs, thermal	Mar. 8, 1892
457,065	Wessel, F. A	Magneto-electric	Aug. 4, 1891
459,848	Wetmore, J. A	Railways, systems, overhead, trolleys	Sept. 22, 1891
457,240	Wheatley, S. E. and Schlosser, J. W	Railways, systems, circuits, multiple arc	Aug. 4, 1891
457,944	Wheatley, S. E. and Schlosser, J. W	do	Aug. 18, 1891
463,764	Wheeler, G. K	Cut-outs, thermal	Nov. 24, 1891
460,076	Wheeler, S. S	Motors	Sept. 22, 1891
464,948	Wheeler, S. S	do	Dec. 8, 1891
468,163	Wheless, M	Railways, systems, circuits, multiple arc	Feb. 2, 1892
468,164	Wheless, M	do	Feb. 2, 1892
468,165	Wheless, M	do	Feb. 2, 1892
468,166	Wheless, M	Railways, systems, conduit, multiple arc	Feb. 2, 1892
466,519	White, H. P	Railway signals, track instruments	Jan. 5, 1892
467,215	White, H. P	Magneto-electric	Jan. 19, 1892
460,416	White, J. E	Telegraphy, circuit closers	Sept. 29, 1891

No.	NAME.	CLASS.	DATE.
460,695	White, L. S.	Applications, tools and machines	Oct. 6, 1891
455,446	White, W. H.	Alarms	July 7, 1891
465,548	White, W. H.	do	Dec. 22, 1891
475,527	Wickham, H.	Coin-controlled apparatus, induction coils	May 24, 1892
460,767	Wilder, E. R.	Telegraphy, fire	Oct. 6, 1891
456,541	Wiegand, S. L.	Heaters	July 21, 1891
465,104	Wiemann, W. P.	Magneto-electric	Dec. 15, 1891
460,614	Wightman, M. J.	Railways, systems, battery	Oct. 6, 1891
460,615	Wightman, M. J.	do	Oct. 6, 1891
469,441	Wightman, M. J.	Transmission of power	Feb. 23, 1892
475,346	Wightman, M. J.	Motors, alternating	June 7, 1892
463,562	Wilcomb, F.	Knitting and netting, stopping	Nov. 17, 1891
477,879	Wilcox, N. T.	Inductoriums, transformers, rotary	June 28, 1892
455,956	Wilcox, S. P. and Partello, J. D.	Railways, systems, closed conduit	July 14, 1891
462,785	Wilder, E. R.	Telegraphy, fire	Nov. 10, 1891
462,786	Wilder, E. R.	do	Nov. 10, 1891
464,090	Wilder, R. A.	Railways, systems	Dec. 1, 1891
464,540	Wilder, W. D. and Cobb, W., jr.	Meters	Dec. 8, 1891
456,182	Wiley, A. S.	Electric locks	July 21, 1891
471,230	Wiley, E. C.	Railway signals, track instruments	Mar. 22, 1892
467,270	Wilkins, C. H.	Lights, incandescent	Jan. 19, 1892
461,228	Willett, G.	Electric locomotives	Oct. 13, 1891
467,338	Williams, C.	Rheostats	Jan. 19, 1892
471,587	Williams, J. B.	Conductors	Mar. 29, 1892
471,588	Williams, J. B.	do	Mar. 29, 1892
400,926	Williams, J. T.	Electro-magnets	Oct. 6, 1891
474,541	Willing, C. A. P. and Violet, R. J. G.	Lights, sockets and keys	May 10, 1892
475,528	Willms, C.	Rheostats	May 24, 1892
475,529	Willms, C.	do	May 24, 1892
470,813	Wilson, A. J.	Railway signals, sectional rail	Mar. 15, 1892
471,409	Wilson, A. J.	do	Mar. 22, 1892
471,410	Wilson, A. J.	do	Mar. 22, 1892
469,765	Wilson, C. H.	Conductors, underground	Mar. 1, 1892
473,044	Wilson, C. H.	do	Apr. 19, 1892
455,696	Wilson, D. H.	Telephones, switch-boards	July 7, 1891
457,296	Wilson, D. H.	Alarms	Aug. 4, 1891
476,347	Wilson, D. H.	Motors, alternating	June 7, 1892
472,417	Wilson, E. L.	Coin-controlled apparatus	Apr. 5, 1892
459,984	Wilson, H. T.	Burglar alarms	Sept. 22, 1891
468,716	Wilson, J. T.	Motors	Feb. 9, 1892
469,799	Wilson, T. L.	Electric locomotives	Mar. 1, 1892
466,914	Winkler, C. F.	do	Jan. 12, 1892
471,590	Winkler, C. F.	Batteries, secondary	Mar. 29, 1892
471,591	Winkler, C. F.	do	Mar. 29, 1892
471,592	Winkler, C. F.	do	Mar. 29, 1892
459,168	Winslow, G. H.	Railways, conductor supports and insulators	Sept. 8, 1891
465,909	Winters, F. M.	Bells	Dec. 29, 1891
470,356	Winton, H. D.	Railways, conductor supports and insulators	Mar. 8, 1892
475,261	Winton, H. D.	Wire working, bending	May 17, 1892
474,073	Wirshing, A.	Rheostats	May 3, 1892
458,206	Winterholder, L.	Time alarms	Aug. 25, 1891
461,659	Wirsching, A. and Scheffbauer, R.	Lights, arc, gravity feed, gear-clutch	Oct. 20, 1891
460,618	Wirt, C.	Cut-outs, mechanical	Sept. 6, 1891
465,508	Wirt, H. C.	Cut-outs, thermal	Dec. 22, 1891
477,980	Wirt, H. E.	Insulators	June 28, 1892
458,879	Wissler, A.	Cut-outs, mechanical, oscillating snap	Sept. 1, 1891
458,880	Wissler, A.	Cut-outs, mechanical	Sept. 1, 1891
464,347	Woolley, L. G.	Air and gas engines, explosive	Dec. 1, 1891
471,929	Woolley, L. G.	Telegraphy, fire, automatic	Mar. 29, 1892
466,761	Wolton, J. A.	Cut-outs, thermal	Jan. 5, 1892
459,605	Wollensak, J. F.	Telegraphy, circuit closers	Sept. 15, 1891
466,644	Wollensak, J. F.	do	Jan. 5, 1892
11,207	Wollensak, J. F. and Gill, W. E. (Reis.)	Batteries, galvanic	Dec. 1, 1891
460,619	Wood, A.	Telegraphy, automatic	Oct. 6, 1891
461,464	Wood, F. B.	Telegraphy, fire	Oct. 20, 1891
462,345	Wood, F. B.	do	Nov. 3, 1891
455,524	Wood, J. J.	Meters	July 7, 1891
460,289	Wood, J. J.	Lightning arresters	Sept. 29, 1891
462,756	Wood, J. J.	Lights, arc, special features	Nov. 10, 1891
468,020	Wood, J. J.	Galvanometers	Feb. 2, 1892
469,800	Wood, J. J.	Meters	Mar. 1, 1892
474,050	Wood, J. J.	Cut-outs, mechanical, oscillating snap	May 3, 1892
477,729	Wood, J. J.	Magneto-electric	June 28, 1892
471,206	Wood, M. M.	Railways, systems, overhead, trolleys	Mar. 22, 1892
473,045	Wood, M. M.	Lightning arresters	Apr. 19, 1892
463,020	Woods, G. T.	Railways, systems, closed conduit	Nov. 10, 1891
11,244	Woolf, A. E. (Reis.)	Electrolysis, bleaching	June 7, 1892

No.	NAME.	CLASS.	DATE.
473,282	Wooley, J. P	Cut-outs, electro-magnetic	Apr. 19, 1892
461,089	Wolstencroft, J. and Soley, W. H	Telegraphy, fire, alarms and extinguishers	Oct. 13, 1891
468,125	Wright, A	Cut-outs, mechanical, oscillating spring	Feb. 2, 1892
477,730	Wright, B	Elevators, safety devices	June 28, 1892
466,818	Wright, C. L	Camera stands	Jan. 12, 1892
460,328	Wright, J. E	Telegraphy, printing, wheel	Sept. 29, 1891
460,457	Wright, J. E	do	Sept. 29, 1891
466,858	Wright, J. E	Telegraphy, printing, multiple, wheel	Jan. 12, 1892
464,055	Wright, P	Heaters	Dec. 1, 1891
472,283	Wright, P	Motors	Apr. 5, 1892
458,931	Wright, W. C	Railways, systems, conduit	Sept. 1, 1891
458,932	Wright, W. C	do	Sept. 1, 1891
463,298	Wrigley, J. and Chambers, G. P	Telegraphy, circuit closers, thermal	Nov. 17, 1891
456,685	Wunderlich, A	Igniting devices, automatic	July 28, 1891
456,684	Wunderlich, A	do	July 28, 1891
465,958	Wurts, A	Lightning arresters	Dec. 29, 1891
470,161	Wurts, A	Cut-outs, electro-magnetic	Mar. 1, 1892
470,772	Wurts, A	Lightning arresters	Mar. 15, 1892
470,773	Wurts, A	do	Mar. 15, 1892
470,774	Wurts, A	do	Mar. 15, 1892
476,855	Wurts, A	do	June 14, 1892
477,483	Yeiser, F	Motors	June 21, 1892
476,028	Yeokley, M. A	Railways, systems, overhead, trolleys	May 31, 1892
461,862	Young, C. G	Magneto-electric	Oct. 27, 1891
467,073	Zahner, F. J	Alarms	Jan. 12, 1892
464,643	Zietlow, J. L. W	Conductors, anti-inductive	Dec. 8, 1891





3 9088 00044 9173  
SMITHSONIAN INSTITUTION LIBRARIES